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TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE

HYGIENIC LABORATORY—BULLETIN No. 131
SEPTEMBER, 1922

Biological
& Medical
Serials

DIGEST OF COMMENTS
ON
THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA
AND ON THE
NATIONAL FORMULARY

FOR THE CALENDAR YEAR
ENDING DECEMBER 31
1920

By

A. G. DuMEZ

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PREFACE.

This is the sixteenth bulletin in the series of Hygienic Laboratory publications known as the Digest of Comments on the Pharmacopœia of the United States and the National Formulary. Like preceding numbers of the series, it represents an attempt to compile abstracts of all of the literature pertaining to the two named standards published during the calendar year.

During the year, active revision on both, the Pharmacopœia of the United States and the National Formulary, was begun. The meeting of the Pharmacopœial Convention was held in Washington, D. C., May 10, 1920, and that of the revision committee of the National Formulary shortly thereafter. The fact, that this bulletin contains the comments published immediately preceding and following these meetings, should make it particularly useful to those directly concerned in the revision of these works.

As in previous bulletins of this series, there has been included the more important of the comments on food and drug laws, antinarcotic laws, poison laws, drug inspection work, cultivation of medicinal plants, drug markets, synthetic remedies, chemotherapy, antiseptics and disinfectants, biologics, and foreign pharmacopœias and standards. The intent in these cases has been to reflect the general trend of comment and to bring to notice new features rather than to review the literature completely.

Comment on the food and drug laws has been mainly along the line of criticism of the present methods of enforcing the antinarcotic laws and the prohibition laws in so far as they relate to the pharmacist or pharmaceutical manufacturer. The general consensus of opinion appears to be that the Harrison law will prove adequate if properly enforced and that there is no need for additional legislation of this kind at present. In the case of the prohibition laws, much discontent is voiced with respect to the regulations governing the handling of alcoholic liquors by retail pharmacists. A considerable number of the latter have expressed the opinion that they should be relieved of the necessity of handling these products and that the Federal Government should provide dispensaries for this purpose.

The comparatively large number of articles dealing with the cultivation of medicinal plants, published during the year, indicates that the subject is still attracting wide attention. That work along these lines is rapidly being systematized is evidenced by the number of fairly comprehensive treatises on the subject which have appeared recently.

Apparently no new discoveries of marked importance have been made in the preparation of synthetic remedies during the year. The most important work completed along this line is, perhaps, that dealing with the preparation of a new class of hypnotics, namely, the dialkylhomophthalimides. Some new mercury derivatives of the phthaleins, possessing germicidal properties, have been prepared, and several new organic arsenic compounds for use in the treatment of syphilis have been placed on the market. Abstracts of articles dealing with this subject are included under the headings "Synthetics," "Chemotherapy," "Arsenic, nonofficial compounds."

It is now quite generally recognized that the fundamental object of the Pharmacopœia and of the National Formulary is the conservation of the health of the public rather than the exploitation of the sale of medicines. This conception of the functions of these standards makes it not only advisable, but necessary, for the members of the respective revision committees to keep informed of the progress which is being made in the field of preventive medicine, in the stamping out of epidemics, and in the improvement of diagnostic methods. For this reason, comments are included in this bulletin on antiseptics and disinfectants, biological products, biological tests, diagnostic reagents and clinical tests, culture media, and serums and vaccines.

As in previous numbers of this bulletin, an attempt has been made to include abstracts of all of the more important comments on foreign pharmacopœias and standards. These, it has been necessary to limit somewhat because of the rapidly increasing number due to the heightened activity along these lines in so many of the foreign countries. At the present time the French, German, Greek, Japanese and Swedish pharmacopœias are undergoing active revision. In addition, the elaboration of national pharmacopœias has been ordered by the Governments of Poland and Czechoslovakia. Comments of this nature will be found under the headings designated by the names of the various pharmacopœias and under "Comments on official articles," where they apply to items official in the pharmacopœia of the United States or the National Formulary.

It will no doubt be recalled by many, that, on November 29, 1906, an agreement was signed at Brussels by the accredited representatives of the various countries concerned relative to the unification of pharmacopœial formulas for potent medicaments. The pharmacopœias which have been revised since that time show evidence of an earnest attempt to comply with the standards laid down in this agreement. But, there is need for further concerted efforts along these lines. In fact, this need has become so urgent that certain countries have found it advisable to take action alone, e. g. resolutions were adopted at the Scandinavian Pharmaceutical Conference held in Stockholm September 10–11, 1920, to the effect that steps be taken to bring the pharmacopœias of Denmark, Norway and Sweden into closer agreement. Closer cooperation between the committees engaged in revising the various national pharmacopœias is certainly desirable. With the object of bringing this about, the personnel of these committees as constituted at present are published in this bulletin where information of this nature has been obtainable.

For the information of those who may not be familiar with the bulletins of this series, it is stated that the abstracts contained herein are prepared with a view to making them suitable as working references only, the intent being to call attention to the character and scope of the papers reviewed rather than to record their actual contents. It, therefore, follows that the space devoted to an abstract is no indication of its relative importance, though some idea of the nature and value of an article may be obtained from its length as indicated by the page reference. In citing references, no special effort has been made to record all of the journals in which a paper may have appeared. Where an article has appeared in more than one periodical, the more available publication has usually been given preference, even in instances where the original article did not appear in the journal first quoted.

In conclusion, the compiler desires to thank the Bureau of Chemistry of the United States Department of Agriculture for the services of Miss Lottie M. Manross, who assisted in the preparation of many of the abstracts, and to express the appreciation of the Bureau of the Public Health Service to the publishers and editors of the journals, periodicals, and reports furnished in exchange; to the secretaries of the State and National pharmaceutical organizations for copies of their annual proceedings; to John Uri Lloyd of Cincinnati for copies of the eclectic medical journals; to the editor of Chemical Abstracts for the loan of several publications; and to the officers of the Library of the Office of the Surgeon General of the Army, the Library of the Department of Agriculture, and the Library of Congress for the use of periodicals and reports not on file in this office.

A. G. D.

Division of Pharmacology,
Hygienic Laboratory,
April 10, 1922.

LIST OF THE LITERATURE REVIEWED.

1. TITLE ABBREVIATIONS—JOURNALS.

Abstr. Bact.—Abstracts of Bacteriology, Baltimore, 1920, v. 4.

Am. Druggist.—American Druggist and Pharmaceutical Record, New York, 1920, v. 68.

Am. Food J.—American Food Journal (The), Chicago, 1920, v. 15.

Am. J. Clin. Med.—American Journal of Clinical Medicine, 1920, v. 27.

Am. J. Dis. Children.—American Journal of Diseases of Children, 1920, v. 19 and 20.

Am. J. M. Sc.—American Journal of the Medical Sciences, Philadelphia, 1920, v. 158 and 159.

Am. J. Pharm.—American Journal of Pharmacy, Philadelphia, 1920, v. 92.

Am. J. Physiol.—American Journal of Physiology, Boston, 1920, v. 50, 51, 52, 53, and 54.

Am. J. Public Health.—American Journal of Public Health, 1920, v. 10.

Am. J. Roentgenology.—American Journal of Roentgenology, New York, 1920, v. 7.

Am. J. Sc.—American Journal of Science, New Haven, 1920, v. 49 and 50.

Am. J. Syphilis.—American Journal of Syphilis, 1920, v. 4.

Am. Med.—American Medicine, 1920, v. 26.

Am. Perf.—American Perfumer and Essential Oil Review, New York, 1920, v. 14 and 15.

Am. Rev. Tuberculosis.—American Review of Tuberculosis, 1920, v. 4.

Anales soc. española fís. quím.—Anales de la sociedad española de física y química, Madrid, 1920, v. 18.

Anales soc. quím. Argentina.—Anales socnedad quimica, Argentina, 1920, v. 8.

Analyst (The), London, 1920, v. 45.

Ann. Bot.—Annals of Botany, London, 1920, v. 34.

Ann. Chem.—Justus Liebig's Annalen der Chemie, Leipzig, 1920, v. 420 and 421.

Ann. chim. anal. chim. appl.—Annales de chimie analytique et de chimie appliquée, Paris, 1920, v. 2.

Ann. Falsif.—Annales de Falsifications, Paris, 1920, v. 13.

Ann. inst. Pasteur.—Annales de l'Institut Pasteur, Paris, 1920, v. 34.

Apothecary (The), Boston, 1920, v. 32.

Apoth.-Ztg.—Apotheker-Zeitung, Berlin, 1920, v. 35.

Arch. exper. Path. u. Pharmakol.—Archiv für experimentelle Pathologie und Pharmakologie, 1920, v. 86, 87, and 88.

Arch. farmacol. sper.—Archivio di farmacologia sperimentale e Scienze affini, Sienna, 1920, v. 29 and 30.

Arch. Int. Med.—Archives (The) of Internal Medicine, Chicago, 1920, v. 25 and 26.

Arch. méd. pharm. mil. Paris.—Archives de médicine et de pharmacie militaires, Paris, 1920, v. 72.

Anales soc. quím. Argentina.—Anales sociedad química, Argentina, 1920, v. 8.

Arch. méd. pharm. nav. Paris.—Archives de médicine et pharmacie navales, Paris, 1920, v. 109–110.

Arkiv. Kem., Min. och Geol.—Arkiv för Kemi, Mineralogi och Geologi, Stockholm, 1920, v. 7.

Atti accad. Lincei.—Atti della reale accademie nazionale dei Lincei, 1920, v. 29.

Ber. deutsch. chem. Gesellsch.—Berichte der deutschen chemischen Gesellschaft, Berlin, 1920, v. 53.

Ber. deutsch. pharm. Gesellsch.—Berichte der deutschen pharmazeutischen Gesellschaft, Berlin, 1920, v. 30.

Ber. gesamt. Physiol.—Berichte über die gesamte Physiologie und experimentelle Pharmakologie, 1920, v. 2, 3, and 4.

Berl. klin. Wchnschr.—Berliner klinische Wochenschrift, 1920, v. 58.

Biochem. J.—Biochemical Journal, Liverpool, 1920, v. 14.

Biochem. Ztschr.—Biochemische Zeitschrift, Berlin, 1920, v. 103–112.

Boll. chim.-farm.—Bolletino Chimico-Farmaceutico, Milan, 1920, v. 59.

Boston M. & S. J.—Boston Medical and Surgical Journal, 1920, v. 182 and 183.

Bot. Abstr.—Botanical Abstracts, Baltimore, 1920, v. 3, 4, 5, and 6.

Bot. Gaz.—Botanical Gazette, Chicago, 1920, v. 69 and 70.

Brit. & Col. Pharm.—British and Colonial Pharmacist, London, 1920, v. 73.

Brit. Food J.—British Food Journal, London, 1920, v. 22.

Brit. M. J.—British Medical Journal, London, 1920, v. 1 and 2.

Bull. Assoc. gén. Syn. Pharm. France.—Bulletin de l'Association Générale des Syndicats Pharmaceutiques de France, 1920, v. 24.

Bull. California Bd. Health.—Monthly Bulletin, California State Board of Health, 1920.

Bull. Conn. Agric. Exper. Sta.—Bulletin of the Connecticut Agricultural Experiment Station, 1920, Nos. 221–225.

Bull. gén. Thérap.—Bulletin général de Thérapeutique, Paris, 1920, v. 171.

Bull. Imp. Inst.—Bulletin of the Imperial Institute, London, 1920, v. 18.

Bull. Lab. Inl. Rev. Dept. Canada.—Bulletins of the Laboratory of the Inland Revenue Department, Ottawa, Canada, 1920, No. 440.

Bull. Maine Dept. Agric.—Bulletin of the Maine Department of Agriculture, 1920.

Bull. Pharm.—Bulletin of Pharmacy, Detroit, 1920, v. 34.

Bull sc. pharmacol.—Bulletin des sciences pharmacologiques, Paris, 1920, v. 27

Bull. sec. sci. acad. Roumaine.—Bulletin de la section scientifique de l'academie Roumaine, 1920, v. 6.

Bull. soc. chim. France.—Bulletin de la société chimique de France, 1920, v. 27 and 28.

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Bull. Soc. scient. et méd. l'ouest.—Bulletin de la Société scientifique et médicale de l'ouest, Rennes, 1920, v. 29, Nos. 1–4.

Bull. U. S. Dept. Agric.—Bulletins of the U. S. Department of Agriculture, 1920.

Bull. Wyoming Agric. Exper. Sta.—Bulletin of the University of Wyoming Agriculture Experimental Station, 1920, Nos. 123–126.

Bur. Mines Tech. Papers.—U. S. Bureau of Mines Technical Papers, 1919 and 1920, Nos. 207–238.

Can. Chem. J.—Canadian Chemical Journal, Toronto, 1920, v. 4.

Canadian Pharm. J.—Canadian Pharmaceutical Journal, Toronto, 1920, v 53 and 54.

Centralb. f. Bakteriol. (Ref.).—Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten (Referate), Jena, 1920, v. 68.

Centralb. f. Bakteriol. (Orig.).—Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten (Originale), Jena, 1920, v. 84.

Chem. Abstr.—Chemical Abstracts, Easton, 1920, v. 14.

Chem. Age, London—Chemical Age (The), London, 1920, v. 2 and 3.

Chem. Age.—Chemical Age, New York, 1920, v. 28.

Chem.-Analyst—Chemist-Analyst (The), Phillipsburg, N. J., 1920, v. 29, 30, and 31.

Chem. & Drug.—Chemist and Druggist, London, 1920, v. 92.

Chem. Eng.—Chemical Engineer, Chicago, 1920, v. 28.

Chem. Met. Eng.—Chemical and Metallurgical Engineer, 1920, v. 22 and 23.

Chem. News—Chemical News, London, 1920, v. 120 and 121.

Chem. Trade J.—Chemical Trade Journal and Chemical Engineer, 1920, v. 66 and 67.

Chem. Umschau.—Chemische Umschau auf dem Gebiete der Fette, Oele, Wachse und Harze, 1920, v. 27.

Chem. Ztg.—Chemiker-Zeitung, Cöthen, 1920, v. 44.

Chem. Zentralbl.—Chemisches Zentralblatt, Berlin, 1920, v. 91.

China Med. J.—China Medical Journal, 1920, v. 34.

Circ. Bur. Stand.—Circulars of the Bureau of Standards, U. S. Department of Commerce, 1920, Nos. 85–106.

Colorado Med.—Colorado Medicine, Denver, 1920, v. 17.

Com. Rep.—Commerce Reports, Daily consular and Trade Reports issued by the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce, 1920, Nos. 1–304.

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Drug. Circ.—Druggists Circular, New York, 1920, v. 64.

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Exper. Sta. Record.—Experiment Station Record, U. S. Department of Agriculture, 1920, v. 43.

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Gaz. chim. ital.—Gazzetta chimica italiana, Roma, 1919, v. 49; 1920, v. 50.

Giorn. farm. chim.—Giornale di farmacia, di chimica e di scienze affini, Torino, 1919, v. 68; 1920, v. 69.

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Indian Med. Gaz.—Indian Medical Gazette, 1920, v. 55, Nos. 2 and 10.

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J. Agric. Research.—Journal of Agricultural Research, 1920, v. 18, 19, 20 and 21.

J. Am. Chem. Soc.—Journal of the American Chemical Society, Easton, 1920, v. 42.

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J. Am. M. Assoc.—Journal of the American Medical Association, 1920, v. 74 and 75.

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J. chim. phys.—Journal de chimie physique, Genève et Paris, 1920, v. 18.

J. Exper. M.—Journal of Experimental Medicine, New York, 1920, v. 31 and 32.

J. Franklin Institute.—Journal (The) of the Franklin Institute, Philadelphia, 1920, v. 189 and 190.

J. Gen. Physiol.—Journal of General Physiology, 1920, v. 2 and 3.

J. H. Hosp. Bull.—Johns (The) Hopkins Hospital Bulletin, Baltimore, 1920, v. 31.

J. Hyg.—Journal (The) of Hygiene, Cambridge, 1920, v. 18 and 19.

J. Immunol.—Journal of Immunology, Baltimore, 1920, v. 5.

J. Ind. & Eng. Chem.—Journal (The) of Industrial and Engineering Chemistry, Easton, 1920, v. 12.

J. Infec. Dis.—Journal (The) of Infectious Diseases, Chicago, 1920, v. 26 and 27.

J. Iowa Med. Soc.—Journal (The) of the Iowa State Medical Society, Des Moines, 1920, v. 10.

J. & J. Lab. Notes.—Laboratory Notes, Johnson & Johnson, New Brunswick, 1920, No. 2.

J. Jamaica Agric. Soc.—Journal (The) of the Jamaica Agricultural Society, 1920, v. 24.

J. Lab. & Clin. Med.—Journal (The) of Laboratory and Clinical Medicine, St. Louis, 1920, v. 5.

J. Linnean Soc. Bot.—Journal of the Linnean Society, Botany, 1920, Nos. 301 and 302.

J. Med. Research.—Journal of Medical Research, Boston, 1920, v. 41 and 42.

J. Path. and Bact.—Journal (The) of Pathology and Bacteriology, Cambridge University, 1920, v. 23.

J. pharm. Belgique.—Journal de pharmacie de Belgique, Brussels, 1920, v. 2.

J. pharm. et chim.—Journal de pharmacie et de chimie, Paris, 1920, v. 21 and 22.

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J. Pharm. Soc. Japan.—Journal of the Pharmaceutical Society of Japan (Yakugakuzasshi), Tokyo, 1920.

J. Phys. Chem.—Journal (The) of Physical Chemistry, Ithaca, 1920, v. 24.

J. Physiol.—Journal (The) of Physiology, London, 1920, v. 53 and 54.

J. physiol. et path. gén.—Journal de physiologie et de pathologie générale, Paris, 1920, v. 19.

J. prakt. Chem.—Journal für praktische Chemie, Leipzig, 1920, v. 101.

J. Proc. Roy. Soc. N. S. Wales.—Journal and Proceedings of the Royal Society of New South Wales, 1919, v. 53.

J. Roy. Micros. Soc.—Journal of the Royal Microscopical Society, 1920.

J. Roy. Soc. Arts.—Journal of the Royal Society of Arts, London, 1920, v. 68.

J. Soc. Chem. Ind.—Journal of the Society of Chemical Industry, London, 1920, v. 39.

J. Trop. Med. & Hyg.—Journal (The) of Tropical Medicine and Hygiene, London, 1920, v. 23.

J. Washington Acad. Sc.—Journal of the Washington Academy of Sciences, 1920, v. 10.

Kolloid-Ztschr.—Kolloid-Zeitschrift, Dresden and Leipzig, 1920, v. 26.

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Med. Sci.—Medical Science, Oxford University Press, 1920, v. 2 and 3.

Merck's Rep.—Merck's Report, New York, 1920, v. 29.

Midl. Drug.—Midland Druggist and Pharmaceutical Review, Columbus, 1920, v. 54.

Mitt. Lebensm. Hyg.—Mitteilungen aus dem Gebiete der Lebensmitteluntersuchung und Hygiene veröffentlicht vom Schweizerischen Gesundheitsamt, Bern, 1920, v. 11.

Monatsh. Chem.—Monatshefte für Chemie, Vienna, 1920, v. 41.

Montreal Pharm. J.—Montreal Pharmaceutical Journal, 1920, v. 31.

Münch. med. Wchnschr.—Müncher medizinische Wochenschrift, Münich, 1920, v. 65.

N. A. R. D. J.—Journal (The) of the National Association of Retail Druggists, Chicago, 1920, v. 29, 30 and 31.

Nat. Drug Clerk.—National (The) Drug Clerk, Chicago, 1920, v. 8.

Nat Druggist.—National (The) Druggist, St. Louis, 1920, v. 50.

Nat. Eclect. M. Assoc. Quart.—National (The) Eclectic Medical Association Quarterly, Cincinnati, 1920, v. 11 and 12.

Nature, London, 1920, v. 105 and 106.

New Orleans M. & S. J.—New Orleans Medical and Surgical Journal, 1920, v. 72 and 73.

New York M. J.—New York Medical Journal, 1920, v. 111 and 112.

Oesterr. Chem.-Ztg.—Oesterreichische Chemiker-Zeitung, Austria, 1920, v. 23.

Off. Insp. Maine Agric. Exper. Sta.—Official Inspections, Maine Agricultural Experiment Station, 1920.

Off. Reg. Iowa Pharm. Assoc.—Official Register Iowa Pharmaceutical Association, 1920.

Ohio Pub. Health J.—Ohio (The) Public Health Journal, Columbus, 1920, v. 11.

Oil, Paint & Drug Rep.—Oil, Paint and Drug Reporter, New York, 1920, v. 97 and 98.

Pacific Drug Rev.—Pacific (The) Drug Review, Portland, 1920, v. 32.

Perf. & Ess. Oil Rec.—Perfumery and Essential Oil Record, London, 1920, v. 11.

Pharm. J.—Pharmaceutical (The) Journal. London, 1920, v. 104 and 105.

Pharm. Monatsh.—Pharmazeutische Monatshefte, Vienna, 1920, v. 1.

Pharm. Weekblad.—Pharmaceutisch Weekblad, Amsterdam. 1920, v. 57.

Pharm. Zentralh.—Pharmazeutische Zentralhalle für Deutschland, Dresden, 1920, v. 61.

Pharm. Ztg.—Pharmazeutische Zeitung, Berlin, 1920, v. 65.

Philippine J. Sc.—Philippine (The) Journal of Science, Manila. 1920, v. 16 and 17.

Phil. Mag.—The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science, 1920, v. 39 and 40.

Physiol. Abstr.—Physiological Abstracts, London, 1920, v. 4 and 5.

Pop. Sci. Monthly.—Popular (The) Science Monthly, 1920, v. 96.

Practitioner (The), London, 1920, v. 104 and 105.

Presse médicale, Paris, 1920, v. 28.

Proc. Am. Drug Mfg. Assoc.—Proceedings of the American Drug Manufacturers Association, 1920.

Proc. Linn. Soc. N. S. Wales.—Proceedings of the Linnean Society of New South Wales, 1920, v. 45.

Proc. Nat. Acad. Sci.—Proceedings of the National Academy of Sciences, Washington, 1920, v. 6.

Proc. N. W. D. A.—Proceedings of the National Wholesale Druggists' Association, New York, 1920.

Proc. Roy. Soc. Lond.—Proceedings of the Royal Society, London, 1920, Series A, v. 97 and 98.

Proc. Roy. Soc. Med., Therap. & Pharmacol. Sec.—Proceedings of the Royal Society of Medicine, Therapeutic and Pharmacologic Section, 1920, v. 13.

Proc. Soc. Exper. Biol. & Med.—Proceedings of the Society for Experimental Biology and Medicine, 1920, v. 17.

Proceedings of State pharmaceutical associations:

- Proc. Alabama Pharm. Assoc. 1920.
- Proc. California Pharm. Assoc. 1920.
- Proc. Connecticut Pharm. Assoc. 1920.
- Proc. Georgia Pharm. Assoc. 1920.
- Proc. Illinois Pharm. Assoc. 1920.
- Proc. Kansas Pharm. Assoc. 1920.
- Proc. Kentucky Pharm. Assoc. 1920.
- Proc. Louisiana Pharm. Assoc. 1920.
- Proc. Maryland Pharm. Assoc. 1920.
- Proc. Massachusetts Pharm. Assoc. 1920.
- Proc. Minnesota Pharm. Assoc. 1920.
- Proc. Mississippi Pharm. Assoc. 1920.
- Proc. Missouri Pharm. Assoc. 1920.
- Proc. Nebraska Pharm. Assoc. 1920.
- Proc. New Jersey Pharm. Assoc. 1920.
- Proc. New York Pharm. Assoc. 1920.
- Proc. North Carolina Pharm. Assoc. 1920.
- Proc. North Dakota Pharm. Assoc. 1920.
- Proc. Ohio Pharm. Assoc. 1920.
- Proc. Pennsylvania Pharm. Assoc. 1920.

Proceedings of State pharmaceutical associations—Continued.
  Proc. South Carolina Pharm. Assoc. 1920.
  Proc. South Dakota Pharm. Assoc. 1920.
  Proc. Tennessee Pharm. Assoc. 1920.
  Proc. Texas Pharm. Assoc. 1920.
  Proc. Vermont Pharm. Assoc. 1920.
  Proc. Virginia Pharm. Assoc. 1920.
  Proc. West Virginia Pharm. Assoc. 1920.
  Proc. Wisconsin Pharm. Assoc. 1920.
  Proc. Wyoming Pharm. Assoc. 1920.
Public Health Rep.—Public Health Reports, Washington, 1920, v. 35.
Pure Products, New York, 1920, v. 16.
Rec. trav. chim.—Recueil des travaux chimiques des Pays-Bays, Leiden, 1920, v. 39.
Répert. Pharm.—Répertoire de Pharmacie, Paris, 1920, v. 32.
Rep. Bureau Chem.—Report of the Chemist of the Bureau of Chemistry, Department of Agriculture, 1920.
Rep. Chem. Lab. Am. M. Assoc.—Reports of the Chemical Laboratory of the American Medical Association, Chicago, 1920, v. 13.
Rep. Connecticut Agric. Exper. Sta.—Report of the Connecticut Agricultural Experiment Station, 1920, Bulletin 227.
Rep. Connecticut D. & F. Com.—Twenty-third Report of the Connecticut Dairy and Food Commissioner, 1920.
Rep. Maine Agric. Exper. Sta.—Thirty-sixth Annual Report of the Maine Agricultural Experiment Station, 1920.
Rep. South Dakota F. & D. Com.—Nineteenth and Twentieth Annual Reports Combined of the Food and Drug Commissioner of South Dakota, 1920.
Rep. Therap. Res. Com.—Annual Report of Investigations of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry of the American Medical Association, Chicago, 1920, v. 9.
Rep. Wyoming D. F. & O. Com.—Sixteenth Annual Report of the Dairy, Food and Oil Commissioner, 1920.
Rev. chim. industrielle.—La revue de chimie industrielle, Paris, 1920, v. 29.
Rev. prod. chim.—Revue des produits chimiques, Paris, 1920, v. 23.
Rocky Mountain Druggist (The), Denver, 1920, v. 34.
Schweiz. Apoth.-Ztg.—Schweizerische Apotheker-Zeitung, Zürich, 1920, v. 58.
Science, New York, 1920, v. 53 and 54.
Science Abstracts, 1920, v. 23A.
Science Progress, 1920, v. 14.
Sci. Am.—Scientific American, 1920, v. 122 and 123.
Sci. Papers Bur. Stand.—Scientific Papers Bureau of Standards, U. S. Department of Commerce, 1920, Nos. 356-409.
Sci. & Ind. Bull.—Scientific and Industrial Bulletin of Roure-Bertrand Fils of Grasse, 1920, Series 4, No. 2.
Seifensieder-Ztg.—Seifensieder-Zeitung, 1920, v. 47.
Smithsonian Misc. Col.—Smithsonian Miscellaneous Collections, 1920, v. 71, No. 6.
Simmons' Spice Mill, New York, 1920, v. 43.
S. African J. Sci.—South African Journal of Science, 1920, v. 17.
Southern Med. J.—Southern Medical Journal, 1920, v. 13.
S. R. A.—Chem.—Service and Regulatory Announcements, United States Department of Agriculture, Bureau of Chemistry, 1920.
Standard Remedies, Chicago, 1920, v. 6.

Svensk farm. Tidskr.—Svensk farmaceutisk Tidskrift, Stockholm, 1920, v. 24.

Svensk kem. Tidskr.—Svensk kemis Tidskrift, Stockholm, 1920, v. 32.

Tariff Information Series, 1920, No. 19.

Tech. Papers Bur. Stand.—Technologic Papers of the Bureau of Standards. U. S. Department of Commerce, 1920, Nos. 150–180.

Therap. Gegenw.—Therapie der Gegenwart, Berlin, 1920, v. 61.

Therap. Halbmonatsh.—Therapeutische Halbmonatshefte, Berlin, 1920, v. 34.

U. S. Naval Med. Bull.—United States Naval Medical Bulletin, 1920, v. 14.

Vierteljahres. prakt. Pharm.—Vierteljahresschrift für praktische Pharmazie, Berlin, 1920, v. 17.

Virginia Pharmacist (The), Richmond, 1920, v. 4 and 5.

West. Pennsylvania Ret. Drug.—Western Pennsylvania Retail Druggist, 1920.

Year Book Am. Pharm. Assoc.—Year Book of the American Pharmaceutical Association, 1919, v. 8.

Year-Book of Pharm. & Trans.—Year-Book of Pharmacy and Transactions of the British Pharmaceutical Conference, London, 1920.

Zentralbl. Biochem. u. Biophys.—Zentralblatt für Biochemie und Biophysik, Berlin, 1920, v. 22.

Ztschr. allgem. österr. Apoth.-Ver.—Zeitschrift des allgemeinen österreichischen Apotheker-Vereins, Vienna, 1920, v. 58.

Ztschr. anal. Chem.—Zeitschrift für analytische Chemie, Wiesbaden, 1920, v. 59.

Ztschr. angew. Chem.—Zeitschrift für angewandte Chemie, Liepzig, 1920, v. 33.

Ztschr. anorg. Chem.—Zeitschrift für anorganische und allgemeine Chemie. Liepzig, 1920, v. 110–114.

Ztschr. exper. Med.—Zeitschrift für gesamte experimentelle Medizin, 1920, v. 10 and 11.

Ztschr. exper. Path. u. Therap.—Zeitschrift für experimentelle Pathologie und Therapie, Berlin, 1920, v. 21.

Ztschr. Immun. u. exper. Therap.—Zeitschrift für Immunitätsforschung und experimentelle Therapie, 1920, v. 29.

Ztschr. physik. Chem.—Zeitschrift für physikalische Chemie. Stöchiometrie und Verwandtschaftslehre, Liepzig, 1920, v. 94, 95, and 96.

Ztschr. physiol. Chem.—Hoppe-Seyler's Zeitschrift für physiologische Chemie, 1920, v. 109, 110, and 111.

Ztschr. Unters. Nahr.–u. Genussm.—Zeitschrift für Untersuchung der Nahrungs–und Genussmittel, Berlin, 1920, v. 39.

Ztschr. wiss. Mikros.—Zeitschrift für wissenschaftliche Mikroskopie. Liepzig. 1920. v. 36 and 37.

2. TITLE ABBREVIATIONS—PHARMACOPŒIAS AND NONOFFICIAL STANDARDS.

Ph. Arg.—Farmacopea Nacional Argentina. primera edición. 1898.

Ph. Austr. VIII.—Pharmacopœa Austriaca, editio octava, 1906.

Ph. Belg. III.—Pharmacopœa Belgica, editio tertia, 1906

Ph. Brit. V.—British Pharmacopœia, 1914.

Ph. Chil. I.—Farmacopea Chilena, 1886.

Ph. Dan. VIII.—Pharmacopœia Danica, 1907.

Ph. Fenn. V.—Pharmacopœa Fennica, editio quinta, 1914.

Ph. Fr. V.—Pharmacopée Francaise, Codex Medicamentarius. 1908.

Ph. Germ. V.—Pharmacopœa Germanica, editio quinta, 1910.

Ph. Helv. IV.—Pharmacopœa Helvetica, editio quarta, 1907.

Ph. Españ. VII.—Farmacopea oficial Española. septima edicion, 1905.

Ph. Hung. III.—Pharmacopœa Hungarica, editio tertia, 1909.
Ph. Ital. III.—Farmacopea ufficiale del Regno d'Italia, terza edizione, 1909.
Ph. Japon. III.—The Pharmacopœia of Japan, 1906 (English translation, 1907).
Ph. Mex. IV.—Farmacopea Mexicana, cuarta edición, 1904.
Ph. Ndl. IV.—Pharmacopea Nederlandica, editio quarta, 1905.
Ph. Norv. IV.—Pharmacopœa Norvegica, editio quarta, 1913.
Ph. Rom. III.—Pharmacopea Romana, editio tertia, 1893.
Ph. Ross. VI.—Pharmacopœa Rossica, sixth edition, 1910.
Ph. Serv. II.—Pharmacopœia Servica, editio secunda, 1908.
Ph. Suec. IX.—Pharmacopœa Svecica, editio nona, 1908.
Ph. Ven. I.—Farmacopea Venezolana, 1898.
U. S. P. IX.—Pharmacopœia of the United States, 9th Dec. Rev., 1916.
N. F. IV.—The National Formulary of Unofficial Preparations, Baltimore, 1916.
N. N. R.—New and Nonofficial Remedies, Chicago, 1920.
B. P. C.—British Pharmaceutical Codex, London, 1911.

DIGEST OF COMMENTS ON THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA AND ON THE NATIONAL FORMULARY.

I. GENERAL COMMENTS.

1. LEGAL STATUS AND DEVELOPMENT.

1. PURE FOOD AND DRUG LAWS.

Beal, J. H.: A discussion of some of the legislative problems of concern to druggists.—Am. Druggist, 1920, v. 68, No. 11, p. 17–19.

Henry, Samuel C.: The National Drug Trade Conference adopted a resolution approving the enactment of the Calder bill, Senate bill 3011, or some similar measure to secure uniformity in drug legislation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 64.

Stone, Frank T.: Report of the N. A. R. D. committee on national legislation.—N. A. R. D. J. 1920, v. 30, p. 1243–1247.

Éwe, Geo. E.: A discussion of labeling practices in connection with drugs.—Proc. Pennsylvania Pharm. Assoc., 1920, p. 261–273.

Anon.: H. R. 5123 is a bill designed to prevent the sending through the mails of advertising matter concerning self-administered venereal remedies, remedies for specific blood poison, blood disorders, ulcers, mucous patches, skin diseases, and skin or bladder troubles or diseases. H. R. No. 12955 is a similar bill, but applies only to advertisements for venereal disease remedies.—N. A. R. D. J. 1920, v. 29, p. 1077.

Anon.: An editorial states that Senate bill No. 3011, which provides that no State law relating to the adulteration or misbranding shall apply to foods, drugs, and medicines in packages which have been transported in interstate commerce and have thereby already become subject to the Federal pure food and drugs act, should be enacted into law.—Pacific Drug Rev., 1920, v. 32, No. 2, p. 13.

Dye, C. A.: Report of the secretary of the section on education and legislation of the American Pharmaceutical Association.—J. Am. Pharm. Assoc., 1920, v. 9, p. 68–79.

Anon.: An editorial states that the proposal to compel disclosure of formulas of all preparations is equivalent to confiscation of property without due process of law, an eventuation against which we are presumed to be protected by the Federal Constitution.—Pacific Drug Rev. 1920, v. 32, No. 2, p. 10.

Anon.: A brief outline of the new regulations covering the manufacture and sale of pharmaceutical preparations and specialties and bacteriological products in Spain is presented.—Pharm. J. 1920, v. 104, p. 327–328.

Anon.: According to an executive resolution promulgated February 11, 1920, no patent medicine can be placed on sale in Cuba until it has been registered with the bureau of health. The ingredients of therapeutic value must be stated on the label, also the name of the manufacturer.—Com. Rep. 1920, p. 1045.

Woodruff, C. M.: The opinion is expressed that if a department of public health is created by the Federal Government, it should be safeguarded against the domination of any particular medical faction.—Proc. Am. Drug Mfg. Assoc. 1920, p. 119–120.

Editorial: It is suggested that section 8 of the food and drugs act is in need of amendment, as the recently passed prohibition act does away with the necessity for stating the alcoholic content of a preparation on the label of the container.—Am. Druggist, 1920, v. 68, No. 8, p. 40.

Editorial: The present-day bay-rum denaturing regulations are stated to be one of the most ridiculous incumbrances which has yet been saddled upon the drug trade in the enforcement of the eighteenth amendment.—Drug & Chem. Markets, 1920, v. 6, p. 635.

Anon.: The Norwegian Government has recently decreed that alcoholic hair restorers, etc., must contain 0.3 per cent of quinine hydrochloride to make them unfit for consumption.—Chem. & Drug., 1920, v. 92, p. 8.

" State Pure Food and Drug Laws " is the title of a compilation of food and drugs laws enacted during 1919 in various States, published by the Proprietary Association and the National Wholesale Druggists Association.

2. SALE AND USE OF POISONS.

Anon.: The Postmaster General has announced an amendment to the postal laws permitting the use of mails by manufacturers for transmission of poisonous drugs and medicines and anaesthetic agents, which are not outwardly, or of their own force, dangerous or injurious to life, health, or property when packed under conditions laid down by the Post Office Department.—Apoth.-Ztg., 1920, v. 35, p. 233.

3. SALE AND USE OF NARCOTIC DRUGS.

Andrews, B. W.: An address explaining the Harrison narcotic law and the Treasury regulations for the enforcement of the law.—J. Am. Pharm. Assoc., 1920, v. 9, p. 395–399.

Greenfield, Arthur D.: A discussion of the narcotic drug problem, with special reference to the additional national and international legislation which should be enacted to insure a more efficient suppression of the illegitimate traffic.—Bull. New York City Dept. Health, 1920, v. 10, p. 273–281.

Dingley, A. G. et al.: A discussion of the workings of the Harrison antinarcotic law and suggestions for its improvement.—Colorado Med. 1920, v. 17, p. 4–9.

Linton, A. W.: The need for regulations covering the exportation of narcotic drugs is discussed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 801–807.

Greenfield, A. D.: A statement of facts in regard to the use and abuse of narcotic drugs and a discussion of the scope and effect of Federal legislation. Suggestions are made for State legislation along this line and the need for such legislation is emphasized.—New York M. J. 1920, v. 111, p. 588–590.

Gibson, Charles: Report of the committee on legislation of the National Wholesale Druggists' Association. The trade problems arising from the enforcement of the narcotic and prohibition laws are discussed.—Oil, Paint & Drug Rep. 1920, v. 98, No. 21, p. 36–40.

Anon.: The Philadelphia College of Pharmacy and Science passed a resolution to the effect that they call upon every pharmacist to maintain faith with the Government and to demonstrate by his strict observance of the narcotic and prohibition laws that the confidence of Congress and of the legislators in the integrity and honor of the pharmaceutical profession has not been misplaced.—West. Pennsylvania Ret. Drug. 1920, October, p. 1.

Editorial: Laxity in the enforcement of the antinarcotic law is said to be responsible for the illegal traffic in narcotic drugs.—Oil, Paint & Drug Rep. 1920, v. 98, No. 6, p. 26–27.

Editorial: It is stated that many dealers in narcotics are turning in their supplies of these drugs to the local internal-revenue offices due to the fact that they do not wish to incur the danger of getting in trouble nor to take the time necessary to keep the required records.—Bull. Pharm. 1920, v. 34, p. 182.

Anon.: At a recent meeting of the Philadelphia Association of Retail Druggists, a resolution was adopted to the effect that the members of the association do not sell or supply paregoric except upon a physician's prescription, as it is habit-forming and can be used by drug addicts to satisfy addiction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 109.

Anon.: Opposition is voiced to any amendment of the Harrison Narcotic Act which will give the Public Health Service control over the importation of narcotics as this is stated to be more of a pharmaceutical question than a medical question.—N. A. R. D. J. 1920, v. 31, p. 438–440.

Henry, Samuel C.: The National Drug Trade Conference has adopted a resolution opposing any amendment to the food and drugs act enlarging the list of habit-forming and poisonous drugs named in paragraph 2, section 8 of said act; or limiting the sale of such drugs to physician's prescriptions unless the objectionable features thereof be stated on the labels.—J. Am. Pharm. Assoc. 1920, v. 9, p. 63.

Anon.: The National Association of Retail Druggists at the meeting held in St. Louis in September, 1920, passed a resolution to the effect that the Commissioner of Internal Revenue be requested to modify section 119 of Regulations 35 by the elimination of the requirement that the signature and address of the person to whom a narcotic prescription is delivered must appear on the back of the prescription.—Midl. Drug. 1920, v. 54, p. 389.

Anon.: The directors of the Western Pennsylvania Retail Druggists Association forwarded to the Commissioner of Internal Revenue a protest against the ruling that the name of the person to whom a narcotic prescription is delivered must be signed on the back of the prescription by the person receiving the same at the time of delivery.—West. Pennsylvania Ret. Drug. 1920, February, p. 1.

Woodruff, C. M.: A just cause for complaint with respect to the narcotic regulations is stated to be the burdensome record keeping and report features that require the needless force of clerks in the department, and in the offices of collectors of internal revenue, as well as in the various laboratories, warehouses, and stores of the trade throughout the country.—Proc. Am. Drug. Mfg. Assoc. 1920, p. 112.

Editorial: The new regulations relating to the Harrison Antinarcotic Law issued by the Bureau of Internal Revenue are the result of many months of conference between Government officials and representatives of the various professions and industries interested in the importation, manufacture, sale, and medicinal application of narcotic drugs, and for this reason it is presumed that they will prove almost uniformly satisfactory to every one concerned.—Drug. Circ. 1920, v. 64, p. 1.

Anon.: The Bureau of Chemistry of the United States Department of Agriculture has found upon investigation that the manufacturers of certain narcotic preparations are guilty of gross misbranding under the provisions of section 8 of the Federal food and drugs act.—N. A. R. D. J. 1920, v. 29, p. 895.

Anon.: With respect to the sale of narcotics, the Federal grand jury of New York recommends that the same regulations be adopted which now control the sale of liquors, that is, that the party to whom a license is issued shall be required to give bond and then sell only on certificates issued after due investigation by the collector of internal revenue or upon physicians' prescriptions.—Apoth.-Ztg., 1920, v. 35, p. 233.

Anon.: The United States District Court for the District of Montana has decided that it is no offence for a physician to obtain opium for his own personal use by means of the prescribed order forms.—Public Health Rep. 1920, v. 35, p. 349.

Anon.: Changes are made in the California poison law limiting the amount of a narcotic which can be prescribed by a physician for a drug addict, and prohibiting the sale of paregoric in any manner other than on a physician's prescription.—Pacific Drug Rev. 1920, v. 32, No. 11, p. 15.

Anon.: The Pennsylvania State Department of Health has ruled that the ambulatory treatment of drug addiction is a violation of the State antinarcotic law.—Public Health Rep. 1920, v. 35, p. 2914-2916.

Anon.: A discussion of the relation of the opium question to the peace treaty.—Brit. Med. J. 1920, v. 1, p. 339-340; Lancet, 1920, v. 198, p. 1176-1177.

Anon.: Treasury Decision 38245 prohibits the exports of opium preparations on and after February 19, 1920, until such time as regulations governing such exports might be promulgated.—Drug & Chem. Markets, 1920, v. 6, p. 303.

Anon.: The Treasury Department has announced that, as Brazil, the Dominican Republic, Greece, Haiti, Italy, Venezuela, Liberia, Oman, Paraguay, Russia, and Switzerland have no laws governing the importation of narcotics, the exportation of narcotics to these countries after April 30 will not be permitted.—Drug & Chem. Markets, 1920, v. 6, p. 395.

Anon.: A review of legislation recently enacted in Canada for the control of the traffic in narcotics.—Am. J. Public Health, 1920, v. 10, p. 812-813.

Anon.: The Canadian House of Commons has passed a penalty clause for illicit trading in opium.—Oil, Paint & Drug Rep. 1920, v. 97, No. 21, p. 55.

Anon.: The new Mexican law governing the traffic in narcotic drugs requires that permits to sell must be obtained from the health department and a record of all amounts bought, sold, or used must be kept.—Drug & Chem. Markets, 1920, v. 7, p. 279.

Anon.: In the latter part of December, 1919, the Dominican Republic passed a law regulating the importation, manufacture, sale, and use of narcotics.—Oil, Paint & Drug Rep. 1920, v. 98, No. 20, p. 60.

Anon.: A reprint of a recent Belgian decree regulating the traffic in cocaine, opium, morphine, and heroin.—Répert. pharm. 1920, v. 32, p. 26–28.

Anon.: Dutch opium legislation. The Dutch opium act of October 4, 1914, is an effort to control the opium traffic in Dutch territories and to perfect the ratification of The Hague Opium Convention.—Drug & Chem. Markets, 1920, v. 6, No. 2, p. 75.

Anon.: A synopsis of the new regulations for the traffic in narcotic drugs issued by the German Minister of the Interior. In order to obtain any drug of this class hereafter a permit must be obtained from the opium distribution center in Berlin, in which the name and amount of the drug required must be stated, as well as the amount already in the applicant's possession, and the name of the firm from which the supply is to be obtained.—Chem. & Drug. 1920, v. 93, p. 1112.

Anon.: A brief summary calling attention to the more important provisions of the Spanish dangerous drugs law.—Chem. & Drug. 1920, v. 93, p. 1304.

Anon: It is stated that a systematic effort to check the importation of narcotics into Shanghai, China, has been undertaken by the Anti-Opium Society. Importation has increased in the last five years from 14 to 28 tons annually and large quantities are smuggled in from the western province of Szeckuen and from Fukien.—New York M. J. 1920, v. 111, p. 910.

Anon.: A review of a book entitled *The Opium Monopoly* by Ellen N. LaMotte.—New York M. J. 1920, v. 111, p. 872.

Kahn, Eugen: The increase in the number of morphine addicts in Germany is stated to be due to the great frequency with which it is prescribed by physicians. Rules for the physician to observe when prescribing opiates are given.—Münch. med. Wchnschr. 1920, v. 67, p. 571–572.

Blair, Thomas S.: A survey of the relative frequency of use of narcotic drugs in hospital service and private practice.—J. Am. M. Assoc. 1920, v. 75, p. 1630–1632.

Hubbard, S. Dana: Notes on some fallacies regarding narcotic drug addiction.—J. Am. M. Assoc. 1920, v. 74, p. 1439–1441.

Editorial: In an effort to stamp out illicit traffic in narcotics, Federal authorities and city officials at Clarksburg, W. Va., are filling prescriptions for drug addicts twice weekly. The profits derived therefrom are used to defray the expense of sending addicts to State institutions for treatment.—Bull. Pharm. 1920, v. 34, p. 180.

Hubbard, S. D.: In a discussion of municipal narcotic dispensaries, it is concluded that these institutions serve no useful purposes.—Public Health Rep. 1920, v. 35, p. 771–773.

Bishop, Ernest S.: A discussion of the benefits and dangers of the administrative handling of the narcotic addict in which it is stated that addiction is a disease, whereas the law makes it a crime. A plea for sensible reform.—Am. J. Public Health, 1920, v. 10, p. 1–7.

Joyce, Thomas F.: Notes on the treatment of drug addiction.—New York M. J. 1920, v. 112, p. 220–222.

Anon.: H. R. No. 11778 is a bill which provides for the care and treatment of drug addicts under the supervision of the United States Public Health Service.—N. A. R. D. J. 1920, v. 29, p. 1126.

Anon.: The National Association of Retail Druggists at a meeting held in St. Louis in September, 1920, resolved, that, as the only legal way liquor can be dispensed at retail is upon the prescription of a duly licensed physician, and for medicinal purposes only, they earnestly and vigorously protest against the continued classification of retail druggists as retail liquor dealers.—Midl. Drug. 1920, v. 54, p. 389.

Anon.: The following resolution was recently adopted at a joint meeting of the Cincinnati branch of the American Pharmaceutical Association and the Ohio Valley Druggists Association:

> *Resolved*, That without either affirming or denying the legitimate use of whisky, brandy, etc., as a medicine, we oppose the dispensing of such by retail pharmacists on prescription or in any other manner. We earnestly urge a change in the law so that pharmacists and retail druggists will not in any manner or for any purpose be permitted to dispense what are commonly understood to be intoxicating liquors. It is our opinion that such liquors, if and when for legitimate medicinal use, should be dispensed only by a Government agency created for that purpose.—Drug. Circ. 1920, v. 64, p. 112.

Anon.: A movement to persuade druggists not to handle liquor for sale on physicians' prescriptions, as authorized by the Federal law, has been inaugurated in St. Louis. The reason for this movement is that the druggists do not wish to be classed as "retail liquor dealers."—West. Pennsylvania Ret. Drug. 1920, July, p. 6.

Anon.: An editorial states that druggists are opposed to being compelled to take out a retail liquor dealer's license in order to dispense whiskey or brandy on physicians' prescriptions.—N. A. R. D. J. 1920, v. 30, p. 761–762.

Editorial: Because of the fact that most druggists refuse to take out a liquor dealer's license, the New York health commissioner plans to appeal to the Federal Government to establish stations whereby the patients of physicians who consider whisky and similar alcoholic beverages valuable in the treatment of disease may obtain their supplies.—Am. Druggist, 1920, v. 68, No. 2, p. 48.

Sayre, L. E.: In the presidential address before the American Pharmaceutical Association, the opinion was expressed that so long as those liquors, the sale of which has been prohibited except as medicine, are regarded as remedial agents, it would be an evasion of responsibility for the pharmacist to decline to perform the service of dispensing them.—Pacific Drug Rev., 1920, v. 32, p. 16.

Anon.: In commenting on the attitude of some druggists in refusing to dispense liquors, it is stated that so long as physicians continue to prescribe liquor, it is the duty of the pharmacist to dispense it. Further, that an appeal to Congress to take away from pharmacy the right to supply such remedies would be to shirk an evident duty and to admit the inability of the profession to properly control the action of its members.—Drug. Circ., 1920, v. 64, p. 279.

Wheeler, Wayne B.: The prohibition act may appear burdensome to some, but it will be a God-send to the trade, if the trade meets the new situation in the right spirit. The so-called drug store which is a booze joint must go. The best of the trade will welcome its departure, and a large part of the trade which has always obeyed the law will be the beneficiary.—J. Am. Pharm. Assoc., 1920, v. 9, p. 4.

Light, S. R.: Report of the committee on alcoholic medicinals. A discussion of the present and future status of medicinal preparations containing alcohol, with special reference to the effect of prohibition legislation.—Proc. Am. Drug Mfg. Assoc., 1920, p. 150–164.

Henry, Samuel C.: The National Drug Trade Conference adopted a resolution urging that alcoholic medicinal compounds in existence before the passage of the Federal prohibition act, and recognized in the drug trade as legitimate medicinal preparations before that date, should be condemned only upon the clearest and fullest evidence of their actual, repeated and successive employment as intoxicating beverages.—J. Am. Pharm. Assoc., 1920, v. 9, p. 65.

Anon.: The National Association of Retail Druggists at a meeting held in St. Louis in September, 1920, protested against the classification of the 18 official preparations mentioned in Regulations 60 as intoxicating liquors, since they are used solely in the compounding of physicians prescriptions.—Midl. Drug., 1920, v. 54, p. 389.

Editorial: At a meeting of the New York Pharmaceutical Conference it was unanimously voted that the Organized Association of Pharmacists in the city go on public record as upholding in every way the efforts of the authorities in enforcing the prohibition laws, and, further to do all that is possible to discover and weed out the few druggists who are taking advantage of conditions to carry on an illegitimate trade in the sale of alcoholic products.—Am. Drug., 1920, v. 68, No. 7, p. 41.

Anon.: In a resolution passed December 2, 1919, the Proprietary Association pledged themselves to cooperate fully with the prohibition commissioner in the enforcement of the prohibition laws.—N. A. R. D. J., 1920, v. 31, p. 351.

Anon.: The National Drug Trade Conference at a meeting on December 7, 1920, adopted a resolution in favor of bringing State prohibition laws in conformity with the national prohibition act so that the compliance with the one will be automatically compliance with the other. This action is due to the realization that national prohibition can not be successfully enforced where the State laws are in conflict with the Volstead Act.—N. A. R. D. J., 1920, v. 31, p. 436.

Anon.: Objection to limiting the sale of alcoholic preparations to drug stores is raised by jobbers in various lines who cater to the trade of crossroads and general stores.—Bull. Pharm., 1920, v. 34, p. 486.

Anon.: The commissioner of health of Pennsylvania has announced that an embargo will be placed on all nonofficial preparations containing alcohol unless the State department is furnished by January 8, 1920, with an affidavit that they do not contain wood alcohol.—J. Am. Pharm. Assoc., 1920 v. 9, p. 109.

Duffie, P. S.: There is neither rhyme nor reason behind the present propaganda against proprietary medicine. The arguments advanced to secure unfair legislation are fallacious. They are unwarranted by any experience past or present. Long before prohibition became certain or was even general throughout the country, the United States Bureau of Internal Revenue took cognizance of the fact that certain alleged medicinal preparations were nothing but disguised alcoholic beverages. Steps were taken to prevent the manufacture and sale of preparations of this character by compelling the manufacturers to pay the retail liquor tax and by the periodical publication of a list of these preparations. It is reasonable to suppose that, when the Nation becomes totally dry, the Federal Government will be no less diligent.—Pacific Drug Rev., 1920, v. 23, No. 1, p. 22–24.

4. SALE AND USE OF HOUSEHOLD REMEDIES.

Ewe, Geo. E.: A discussion of the advantages and disadvantages of "nonsecret" remedies over "secret" remedies.—J. Am. Pharm. Assoc., 1920, v. 9, p. 983–995.

Havenhill, L. D. et al.: Report of the committee on fake remedies of the Kansas Pharmaceutical Association.—Proc. Kansas Pharm. Assoc., 1920, p. 34–35.

Editorial: A plea for protection against quack proprietary preparations. Misbranding and false labelling of these preparations is becoming more frequent.—Oil, Paint & Drug Rep., 1920 v. 98, No. 3, p. 25.

Anon.: The object of an advertising bureau recently established by the Proprietary Association is to determine the reliability of package medicine advertising and to inform publishers as to its truthfulness and propriety.—Drug & Chem. Markets, 1920, v. 6, p. 732.

Woodruff, C. M.: It is stated that the persistency of the interests behind legislation which would compel formulae disclosures indicates that the aim is not so much to protect the public as it is to discredit medicinal preparations not mentioned in our legal standards, regardless of their intrinsic worth.—Proc. Am. Drug Mfg. Assoc., 1920, p. 118.

Metcalf, James A.: A discussion of ready-made medicines, with respect to their alcohol content and the enforcement of the prohibition act.—Pacific Drug Rev., 1920, v. 32, p. 38–40.

Schleip, Leopold: A warning against the use of purgatives containing phenolphthalein. A list of 72 such remedies is given.—Münch. med Wchnschr. 1919, v. 66, p. 1294.

Anon.: The American Drug Manufacturers Association have endorsed the strict enforcement of the eighteenth amendment in so far as it affects the drug trade.—Drug & Chem. Markets, 1920, v. 6, p. 735–736.

Anon.: A note calls attention to the establishment in Holland of a state institute for the investigation of medicines, for the purpose of determining whether or not they possess therapeutic properties.—Pharm. J. 1920, v. 105, p. 392.

Anon.: The British Minister of Health has appointed a committee to advise on legislative and administrative measures to be taken for the control of the quality and authenticity of proprietary remedies and therapeutic wares offered to the public. The British law at present is powerless to prevent any person from procuring any drug or taking any mixture, whether potent or without therapeutic activity, advertising it in any way he likes and selling it under any name he chooses.—Montreal Pharm. J. 1920, v. 31, p. 145–147.

Anon.: The new San Salvador law for regulating the business of the chemist and pharmacist in the Republic provides that the sale of national or foreign patent medicines without the permission of the "Junta de Gobierno" is prohibited.—Pharm. J. 1920, v. 105, p. 392.

Anon.: Data relative to the composition of a number of Swedish patented and proprietary remedies are presented.—Svensk farm. Tidskr. 1920, v. 24, p. 194–196.

5. DRUG-INSPECTION WORK.

Alsberg, C. L.: A report on the condition of shipments of drugs imported into the United States for the fiscal year ending June 30, 1920.—Rep. Bureau Chem. 1920, p. 11–12.

Editorial: Adulteration of crude drugs has declined to such an extent that the chairman of the National Wholesale Druggists' Association committee on the prevention of adulteration has recommended the discontinuance of the annual report on the subject, in order that the time of the members need no longer be taken up with a dead issue.—Bull. Pharm. 1920, v. 34, p. 48.

Dulière, Walter: A report on the widespread sale of spurious chemicals and drugs in Belgium since the war. Neosalvarsan, fluidextract of cinchona, extract of opium, cod liver oil and pyramidon are among the adulterated products mentioned.—J. pharm. Belg. 1920, v. 2, p. 873–876.

Bachman, Gustav: Of 97 samples of drugs examined, 44 were below the U. S. P. standard.—Proc. Minnesota Pharm. Assoc. 1920, p. 107–109.

Éwe, Geo. E.: Of 211 samples of drugs examined, 173 were above standard and 38 were below.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Terry, Robert W.: Report of the committee on adulteration and sophistication of drugs of the Ohio State Pharmaceutical Association. Data obtained in the examination of 30 different drugs and pharmaceutical preparations are given.—Proc. Ohio Pharm. Assoc. 1920, p. 154–156.

Woods, Chas. D.: The results obtained in the examination of a large number of drugs and medicinal preparations collected by drug inspectors are reported.—Off. Insp. No. 95, Maine Agric. Exper. Sta. 1920, p. 1–11.

Kroll, S.: Data obtained in the analysis of commercial samples of "barbitone" and arsenious acid tablets are presented.—Apoth.-Ztg. 1920, v. 35, p. 310–311.

Zimmermann, Walther: Results obtained at the laboratory of the Pharmaceutical Institute at Illenau in the analysis of commercial samples of a large number of chemicals and pharmaceutical preparations are presented.—Apoth.-Ztg. 1920, v. 35, p. 340–341.

6. THE PHARMACOPŒIA AS A LEGAL STANDARD.

Gane, E. H.: The legal status of the Pharmacopœia has placed many restrictions on the sources of supplies of drugs and chemicals. The idea of stopping trouble at the source is a good one, but in practice it is apt to work damage to many an innocent individual and to hamper the commerce of the country.—Am. Druggist, 1920, v. 68, No. 5, p. 23; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LaWall, Charles H.: It has been stated that insufficient time was given from the time when the U. S. P. became available in the furthermost parts of the United States and the date when the work became official. It is thought that six months is not too long a time for the interests involved to make the necessary changes in labels and stocks and to minimize the confusion always attendant upon such a period of change.—Am. J. Pharm. 1920, v. 92, p. 385.

7. SUPPLEMENT TO THE PHARMACOPŒIA.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the executive committee should again be empowered to issue supplements to the Pharmacopœia, if, in their judgment, such be necessary.—Am. J. Pharm. 1920, v. 92, p. 548.

8. UNITED STATES PHARMACOPŒIAL CONVENTION.

Anon.: The following were elected officers of the U. S. Pharmacopœial Convention of 1920: President, Dr. Reid Hunt, Harvard University; first vice president, Dr. F. B. Power, United States Department of Agriculture, Washington, D. C.; second vice president, Dr. M. Howard Fussell, Philadelphia; third vice president, Dr. W. A. Bastedo, New York City; fourth vice president, Prof. L. E. Sayre, University of Kansas; fifth vice president, Dr. J. F. Anderson, New Brunswick, N. J.; secretary, Dr. L. F. Kebler, Bureau of Chemistry, Washington, D. C.; assistant secretary, Dr. W. W. Stockberger, United States Department of Agriculture, Washington, D. C.; treasurer, Samuel L. Hilton, Washington, D. C.—Proc. New York Pharm. Assoc. 1920, p. 64–65.

Wiley, Harvey W.: In the presidential address delivered before the 1920 U. S. P. Convention the following recommendations were made: 1. There should be equal representation of pharmacists and physicians throughout. 2. Representation at the convention should be restricted among colleges to 100 medical schools and 100 pharmacy schools. 3. Colleges not included in the American Conference of Pharmaceutical Faculties or the A. M. A. classification of medical schools should not be entitled to representation. 4. Representatives from Latin-American countries, Canada and the U. S. insular possessions should be invited to take part in the U. S. P. revision.—Drug. Circ. 1920, v. 54, p. 228; Midl. Drug. 1920, v. 54, p. 244–254.

Whelpley, H. M.: A reprint of certain amendments to the constitution and by-laws of the U. S. Pharmacopœial Convention recommended by the board of trustees for adoption by the convention of May 11, 1920.—N. A. R. D. J., 1920 v. 29, p. 898.

9. GENERAL PRINCIPLES TO BE FOLLOWED IN REVISING THE PHARMACOPŒIA.

Anon.: The following are the general principles to be followed in revising the Pharmacopœia which were adopted by the U. S. P. Convention of 1920:

OBJECT AND SCOPE OF THE PHARMACOPŒIA.

The object of the Pharmacopœia is to provide standards for the drugs and medicines of therapeutic usefulness or pharmaceutic necessity sufficiently used in medical practice throughout the United States and its possessions; to lay down tests for the identity, quality, and purity of these; to insure, as far as possible, uniformity in physical properties and active constituents.

It is recommended that the committee of revision be authorized to admit into the Pharmacopœia a carefully selected list of medicinal substances of known origin, but no substances or combination of substances shall be introduced if the composition or mode of manufacture thereof be kept secret. A statement shall be placed in the preface to the effect that standards for purity and strength, described in the text of the Pharmacopœia, are intended solely to apply to substances which are used for medicinal purposes or for determining the identity and purity of the same.

DOSES.

It is recommended that in stating doses in the Pharmacopœia the committee of revision be instructed to state the average approximate (but neither minimum nor a maximum) dose for adults, and, where deemed advisable, also for children. The metric system to be used, and the approximate equivalent in apothecary weights or measures inserted in parentheses. It is to be distinctly understood that neither this convention nor the committee of revision created by it intends to have these doses regarded as obligatory on the physician or as forbidding him to exceed the doses given whenever in his judgment this may seem advisable: the committee of revision shall make a distinct declaration to this effect in some prominent place in the new Pharmacopœia.

NOMENCLATURE.

It is recommended that changes in the titles of articles at present official be made only for the purpose of insuring greater accuracy, brevity, or safety in dispensing, and to eliminate therapeutically suggestive titles. That changes in botanical names be made only for well defined reasons, and such changes shall conform to the rules of the International Botanic Congresses.

In the case of newly admitted articles, it is recommended that such titles be chosen as are in harmony with general usage and convenient for prescribing; for synthetic chemicals, with lengthy or unwieldy names, the committee of revision shall be empowered to coin short euphonious titles, contracted, if possible, from the true chemical names, but in the case of chemicals of a definite composition the scientific name shall be given, at least as a synonym.

There shall also be inserted, after each article used by physicians in prescriptions, an abbreviated name, which may be known as an official abbreviation in order that uniformity may be established throughout the country, with the object of preventing mistakes in reading and compounding prescriptions, and further, to serve as authorized abbreviations in labeling the store furniture of the pharmacist.

SYNONYMS.

It is recommended that the use of synonyms should be extended in the next revision, and the synonyms printed in the text of the Pharmacopoeia, immediately after the official English name of the substance. When an article is known in commerce under more than one commonly used English name, such vernacular titles may be given as synonyms. A statement shall be made in the Preface of the Pharmacopœia that substances labeled with an official synonym must comply with the same standards, tests, and requirements as are demanded for the article under the official title.

PURITY AND STRENGTH OF PHARMACOPŒIAL ARTICLES.

It is recommended that the committee of revision be instructed to carefully revise the limits of purity and strength of the Pharmacopœial chemicals and preparations, for which limiting tests are or may be given. While no concession should be made toward diminution of medical value, an allowance should be made for unavoidable, innocuous impurities or variations due to the particular source or mode of preparation, or to the keeping qualities of the several articles.

The "Purity Rubric," which limits the percentage of innocuous impurities, as introduced in the previous revision, should be continued, and tests and requirements should be appended to each article for which a "Purity Rubric" is given.

INTERNATIONAL STANDARDS.

The International Conference for the Unification of Formulas for Potent Remedies performed a signal service for all countries by recommending the various pharmacopœias of the world to adopt certain standards for potent medicines. It is recommended that the committee of revision retain or adopt these standards wherever practicable, but it is believed that it would be unwise to require the acceptance of the details of pharmaceutical or other processes recommended by the International Conference.

If the finished product conforms to the International standards, we believe that each country should be left free to adopt such detail and manipulation as may seem to it best. Nothing should prevent, however, the adoption of the recommendations of the conference, as to details, if in the opinion of the committee of revision the Pharmacopœia can be improved by so doing.

The advances in science since the International Conference at Brussels in 1902 would indicate that international standards then adopted are not such as would be approved at this time as being in conformity with our present knowledge and ideals. It is recommended that, as soon as conditions will warrant, the Pharmacopœial Convention take the initiative of calling another international conference for the unification of standards and formulas for potent remedies.

GENERAL FORMULAS.

In view of the success attending the adoption of general formulas in the U. S. P., IX, for fluidextracts and tinctures, it is recommended that this principle be extended to the other official classes of preparations wherever practicable, and where preparations can be made by identical processes, that the general formulas to be followed in each case shall be indicated in the text by reference.

APPENDING A LIST OF PREPARATIONS IN WHICH AN OFFICIAL ARTICLE IS USED.

It is recommended that, especially for the convenience of practicing physicians, there shall be appended after each article in the text a list of the official preparations in which it is an active essential ingredient.

ALCOHOLIC PERCENTAGE IN OFFICIAL PREPARATIONS.

It is recommended that a range of the content of absolute alcohol, by volume, be stated in the Pharmacopœia, accompanying the test, for each preparation containing alcohol.

ASSAY PROCESSES.

It is recommended that the committee of revision be instructed to introduce assay processes for as many of the potent drugs and preparations made therefrom as may be found practicable and which lead to fairly uniform results when applied by different analysts;

wherever feasible, tests of identity and purity are to be given for products of such assays.

Where reliable methods of chemical assay are not possible, and concordant and dependable methods of pharmacodynamic testing are available, the latter methods of standardization shall be adopted.

SERUMS AND OTHER BIOLOGIC PRODUCTS.

It is recommended that serums and other biologic products, of approved usefulness, if standardized by a department of the Federal Government, be admitted to the Pharmacopœia.

WEIGHTS AND MEASURES.

It is recommended that the committee of revision be instructed to retain the metric system of weights and measures.

ATOMIC WEIGHTS.

It is recommended that the atomic weights adopted in the revision shall be based upon oxygen taken at 16 ($O=16$), and in accordance with the latest available report of the International Committee on Atomic Weights.

PHYSICAL CONSTANTS.

It is recommended that official methods for taking physical constants shall be stated in the Pharmacopœia, and these shall apply to all articles in which physical constants are officially used, unless otherwise specifically excepted.

STANDARD TEMPERATURE.

It is recommended that the standard temperature of 25° C. (77° F.) be retained in the revision (except for alcohol or in other special cases), and that an alcoholometric table be inserted in Part II giving the percentage of alcohol at different temperatures.

COMPOUND PREPARATIONS.

It is recommended that the introduction of compound preparations be discouraged as far as possible.

PHARMACOGNOSTICAL DESCRIPTIONS.

It is recommended that with the description of a crude drug there be included brief, pharmacognostical descriptions, both macroscopic and microscopic where practicable, and, as a means of detecting adulteration, there shall be added a statement of the appearance of the distinctive structural elements in the powder, when examined microscopically.

POWDERED DRUGS.

It is recommended that powdered drugs be required to represent the entire drug unless specifically stated otherwise. Where the drug can be powdered without residue this should be required; in other cases the amount of allowable tailings, gruffs, or residue should be determined and inserted in the text.

SOLUBILITIES.

It is recommended that the degree of solubility of official substances in various solvents be given as completely as practicable.

STERILIZATION.

It is recommended that there be included in the Pharmacopœia a chapter on sterilization.

COMMITTEE ON DRUG MARKETS.

It is recommended that the committee of revision be empowered to appoint a special committee to make an investigation of the quality of crude drugs in commerce, and that this committee be especially instructed to endeavor to determine the proper limits of variability, due to soil and climatic conditions, or collection, or handling, and to suggest such improvements as can be introduced in the collecting, marketing, and preservation of crude drugs.

PUBLICITY.

It is recommended that the committee of revision make public for comment and criticism, an abstract of new descriptions and standards and all important changes in preparations and standards proposed, before final adoption.

FORMULATION OF RULES.

In all matters not especially provided for by the "General principles" adopted by the convention, the committee of revision is empowered to formulate such rules as it considers necessary.

DATE WHEN THE NEXT PHARMACOPŒIA BECOMES OFFICIAL.

It is recommended that the committee of revision print upon the title page of the next Pharmacopœia a definite date, reasonably distant from the actual date of publication, announcing when the new Pharmacopœia is intended to go into effect and to supersede the preceding one.

SPANISH EDITION.

It is recommended that the Tenth Revision of the United States Pharmacopœia be translated into the Spanish language and published.

SUPPLEMENT.

It is recommended that the committee of revision be authorized to prepare supplements to the Pharmacopœia, or lists of admission or changes at any time they may deem such action desirable.—J. Am. Pharm. Assoc., 1920, v. 9, p. 740–743; Drug. Circ., 1920, v. 64, p. 229.

Wood, Horatio C., jr.: The U. S. P. revision committee should be given wider latitude concerning the admission of proprietary synthetics. Under the rule adopted at the convention of 1910, the committee of revision was forced to exclude such valuable and widely used remedies as acetylsalicylic acid and veronal.—Drug. Circ., 1920, v. 64, p. 85.

10. PUBLICATION AND CONTROL.

Anon.: The following constitute the board of trustees as elected by the U. S. Pharmacopœial Convention of 1920: Prof. James H. Beal, chairman, Urbana, Ill.; Prof. F. J. Wulling, University of Minnesota; Dr. H. M. Whelpley, secretary, St. Louis; Dr. George H. Simmons, Chicago, Ill., and Dr. S. Solis Cohen, Philadelphia.—Proc. New York Pharm. Assoc., 1920, p. 65.

Brown, Alexander G., jr.: The first Pharmacopœia published in the United States was written by Dr. Wm. Brown in 1777–1778. It was printed by Charles Cist, of Philadelphia, in 1781. It contained 32 pages and was written for the use of the Continental Army hospitals.—Merck's Rep., 1920, v. 29, p. 100.

Clark, A. H.: It is recommended that the committee of revision publish as a separate volume all the technical scientific work, such as assay methods, analytical operations, etc. By this means the scientific work could be brought to a much higher degree of perfection, thus making it more useful to chemists and officials everywhere.—J. Am. Pharm. Assoc., 1920, v. 9, p. 295.

Mentzel, A. F.: The policy of issuing the Pharmacopœia and the National Formulary as separate volumes is thought to be a wise one and to have certain distinct advantages over the publication of these volumes as one unit.—Proc. Wisconsin Pharm. Assoc., 1920, p. 87–88; see also H. Kesten, p. 88–89.

11. VALUE OF CRITICISM.

Anon.: An editorial comments on the use of the Hygienic Laboratory bulletins entitled "Digest of Comments on the Pharmacopœia of the United States and the National Formulary" in the revision of the Pharmacopœia, and makes a plea for similar assistance by the British Government in the revision of the British Pharmacopœia.—Pharm. J., 1920, v. 105, p. 358.

Beringer, George M.: In a review of the Digest of Comments on the U. S. P. and N. F. for the calendar years 1915 and 1916, it is stated that the United States Public Health Service, in undertaking this important piece of work, and continuing the same systematically, is performing a notable service to all of the interests concerned in the establishment of correct standards for medicine, and indirectly is performing a valuable service to the public who are the final consumers.—Am. J. Pharm., 1920, v. 92, p. 203.

Editorial: A review of the Hygienic Laboratory bulletins entitled "Digest of Comments on the Pharmacopœia of the United States and the National Formulary for the years 1915 and 1916" states that these publications are most useful sources of reference.—Perf. & Ess. Oil Rec., 1920, v. 11, p. 325–327.

12. COMMITTEE OF REVISION.

Anon.: The following are the members of the committee of revision of the U. S. P., elected by the Pharmacopœial Convention of 1920:

Medical.—Dr. J. F. Anderson, New Brunswick, N. J.; Dr. H. C. Barbour, New Haven, Conn.; Dr. W. A. Bastedo, New York City; Dr. H. A. Christian, Washington, D. C.; Dr. A. R. Craig, Chicago; Dr. C. W. Edmunds, Ann Arbor, Mich.; Dr. B. Fantus, Chicago; Dr. L. P. Hamburger, Baltimore; Dr. R. A. Hatcher, New York City; Dr. E. R. Hodge, U. S. A., Washington, D. C.; Dr. Reid Hunt, Boston; Dr. I. E. Leonard, Atlantic City, N. J.; Dr. G. W. McCoy, U. S. Public Health Service, Washington, D. C.; Dr. L. G. Roundtree, Minneapolis; Dr. T. Sollman, Cleveland; Dr. E. R. Stitt, U. S. N., Washington, D. C.; Dr. H. C. Wood, Philadelphia; and Dr. M. H. Fussell, Philadelphia.

Pharmaceutical.—H. V. Arny, New York City; C. L. Alsberg, Washington, D. C.; G. M. Beringer, Camden, N. J.; T. J. Bradley, Boston; E. F. Cook, chairman, Philadelphia; J. Culley, Ogden, Utah; C. E. Caspari, St. Louis; A. H. Clark, Chicago; A. G. DuMez, Washington, D. C.; A. R. L. Dohme, Baltimore; J. Diner, New York City; C. A. Dye, Columbus, Ohio; F. R. Eldred, Indianapolis, Ind.; J. M. Francis, Detroit; E. N. Gathercoal, Chicago; L. D. Havenhill, Lawrence, Kans.; E. M. Houghton, Detroit; C. B. Jordan, Lafayette, Ind.; C. W. Johnson, Seattle, Wash.; E. F. Kelly, Baltimore; H. Kraemer, Ann Arbor, Mich.; C. H. LaWall, secretary, Philadelphia; B. L. Murray, Rahway, N. J.; E. L. Newcomb, Minneapolis; F. W. Nitardy, New York City; P. S. Pittenger, Philadelphia; W. O. Richtmann, Madison, Wis.; G. D. Rosengarten, Philadelphia; E. A. Ruddiman, Nashville, Tenn.; A. Schneider, Lincoln, Nebr.; L. A. Seltzer, Detroit; W. L. Scoville, Detroit; and W. H. Zeigler, Charleston, S. C.

SUBCOMMITTEES.

Scope (admissions and deletions): Dr. H. C. Wood, jr., chairman; Barbour, Bastedo, Beringer, Christian, Craig, DuMez, Edmunds, Fantus, Fussell, Hamburger, Hatcher, Hodge, Hunt, LaWall, Leonard, Roundtree, Seltzer, Sollmann, Stitt, Zeigler.

Therapeutics and pharmacodynamics (posology): Dr. Torald Sollmann, chairman; Bastedo, Fussell, Wood.

Bio assays: Dr. C. W. Edmunds, chairman; Anderson, Barbour, Hatcher, Houghton, Hunt, McCoy, Pittenger, Zeigler.

Biological products and diagnostical tests: Dr. G. W. McCoy, chairman; Anderson, Edmunds, Houghton, Pittenger, Stitt.

Botany and pharmacognosy: Prof. Henry Kraemer, chairman; Alsberg, Dye, Gathercoal, Newcomb, Richtmann, Schneider.

Proximate assays: Prof. C. E. Caspari, chairman; Dohme, Eldred, Havenhill, Johnson, Ruddiman, Scoville.

Inorganic chemicals: Prof. H. V. Arny, chairman; Alsberg, Bradley, Caspari, Clark, Eldred, Havenhill, Jordan, LaWall, Murray, Rosengarten.

Organic chemicals: Dr. George D. Rosengarten, chairman; Arny, Caspari, Clark, Dohme, Johnson, Jordan, Murray.

Reagents and test solutions: Prof. Charles H. LaWall, chairman; Bradley, Eldred, Murray, Nitardy, Rosengarten.

Volatile oils: Dr. W. O. Richtmann, chairman; Alsberg, Dohme, Gathercoal, Johnson.

Fluidextracts, extracts, tinctures: George M. Beringer, chairman; Francis, Havenhill, Kelly, Nitardy, Ruddiman.

Waters, solutions, spirits, syrups, elixirs: Prof. W. L. Scoville, chairman; Beringer, Culley, Dye, Fantus, Kelly, Ruddiman, Seltzer.

Cerates, ointments, and miscellaneous galenicals: Dr. Jacob Diner, chairman; Clark, Culley, Dye, Francis, Kelly, Seltzer.

Tables, weights, and measures: Dr. T. J. Bradley, chairman; Caspari, Diner, DuMez, Jordan.

Nomenclature: Dr. A. G. DuMez, chairman; Craig, Fantus, Kraemer, Newcomb, Schneider, Stitt, Wood.—Proc. New York Pharm. Assoc. 1920, p. 65–66.

Wiley, Harvey W.: In the presidential address delivered before the 1920 U. S. P. Convention it was recommended: 1. That instead of a revision committee of 50, there should be an electoral committee of 50 whose duty it should be to select a small revision committee. 2. That representatives of commercial manufacturing houses should not be included in the revision committee on the ground that interested parties should not sit in judgment on their own cases.—Drug. Circ. 1920, v. 54, p. 228.

Sollmann, Torald: The present revision committee is too large for maximum efficiency. This can be corrected by restricting the number of the members of the revision committee to the chairmen of the subcommittees. These chairmen should be elected for specific subdivisions directly by the convention, and they should be permitted to appoint their own associates. The chairman of the subcommittee on scope should be elected by the medical representatives of the convention. Attendance at the convention at Washington should not be required for service on the subcommittees.—Drug. Circ. 1920, v. 64, p. 88; J. Am. Pharm. Assoc. 1920, v. 9, p. 285.

Dohme, A. R. L.: It is recommended that the number of members of the revision committee be reduced to three, who would devote all of their time to the work and be amply paid therefor. This committee should have power to name experts and assistants to any extent needed. For carrying out the scientific phases of revision, it is recommended that an advisory board of ten be appointed to assist the committee of three.—J. Am. Pharm. Assoc. 1920, v. 9, p. 279–280.

Fischelis, Robert P. et al.: A symposium on pharmacopœial revision, with special reference to who shall do the work.—J. Am. Pharm. Assoc. 1920, v. 9, p. 198–202.

Dohme, A. R. L.: A discussion of the revision of the U. S. P. from the standpoint of the organization of the revision committee and of the method of financing the work.—J. Am. Pharm. Assoc. 1920, v. 9, p. 401–403.

LaWall, Charles H.: It would be in the interests of efficiency if, in naming the men who are to serve upon the revision committee in the next decade, some classification of their qualifications be insisted upon before their names are placed in nomination. By following such a plan a well-balanced committee could be selected embodying experts along all lines of work.—Am. J. Pharm. 1920, v. 92, p. 389.

Kebler, L. F.: It is recommended that instead of requiring volunteers to do the major part of the revision work, such work should be done by paid workers.—J. Am. Pharm. Assoc. 1920, v. 9, p. 285.

Editorial: The cooperation of the American Veterinary Medical Association with the pharmacopœial revision committee is stated to be desirable.—J. Am. Vet. Med. Assoc. 1920, v. 57, p. 389–390.

LaWall, Chas. H.: Report of the committee of revision of the U. S. P.–Am. J. Pharm. 1920, v. 92, p. 376–390.

Editorial: The view is expressed that fair and equitable representation has not been accorded the retail pharmacists on the new U. S. P. revision committee. It is stated that there are only three retail druggists on this committee.—N. A. R. D. J. 1920, v. 30, p. 295–296.

Philip, W. B.: It does not seem that sufficient time was given to the analysis of the committee of 50 in order to obtain the best possible balance. By balance is meant not an over number of chemists or colleges of pharmacy, but an even proportion of retailers, manufacturers, chemists, botanists, pharmacists, etc.—Pacific Drug. Rev. 1920, v. 32, No. 7, p. 18.

Editorial: The view is expressed that so few retail druggists were elected to the revision committee because of the fact that a great amount of laboratory work is necessary. Many of the druggists who were members of the convention expressed themselves as being of the opinion that only a few of their own number should be placed on the revision committee for this reason.—Pacific Drug. Rev. 1920, v. 32, p. 11–12.

13. NATURE AND PROGRESS OF REVISION.

Arny, H. V.: The following are stated to be six principal causes for delay in the revision of the Pharmacopœia: Lack of money, superabundance of counselors, unnecessary discussion, cumbersome voting methods, shortage of paid help, and unnecessary research done during revision. Methods for overcoming these obstacles are suggested.—Drug. Circ. 1920, v. 64, p. 129–131.

Wiley, Harvey W.: The author will recommend the establishment in Washington of a laboratory specifically devoted to pharmacopœial revision work. The opinion is expressed that the number of people on the revision committee should be reduced to approximately 15.—Drug. Circ. 1920, v. 64, p. 85.

LaWall, Chas. H.: When the convention wishes a more expeditious revision of the U. S. P., it can easily obtain results by authorizing a large enough expenditure of funds to enable personal conferences to take the place of long drawn-out arguments and discussion by correspondence, and in the interest of scientific efficiency by authorizing the establishment of a central laboratory where all problems can be worked out, at least in a preliminary way, without having to wait for the convenience of those who are doing the work largely as a labor of love.—Am. J. Pharm. 1920, v. 92, p. 382.

Cook, E. F.: The methods of revision employed in getting out the U. S. P., IX, are described and commented on. It is suggested that the new revision committee hold conferences more frequently than the last in order to expedite the work of revision.—J. Am. Pharm. Assoc. 1920, v. 9, p. 487–491.

Day, William B.: The present method of revising the Pharmacopœia is thought to be quite satisfactory, on the whole. It is suggested that an advance along the line of a continuous revision, which will expedite publication of the work, is desirable.—Drug. Circ. 1920, v. 64, p. 87.

Lyons, A. B.: As to general principles, "it does not seem to me that any improvement can be made at present in the method of procedure in revising the Pharmacopœia. The book aims to establish standards for the medicines prescribed by physicians—equally essential for physician and patient. Perhaps the welfare of the latter should be more emphasized than at present."—Drug. Circ. 1920, v. 64, p. 87.

LaWall, Charles H.: It is recommended that the revision of the Pharmacopœia in the future be carried out by the holding of personal conferences rather than through correspondence, as has been done in the past. This procedure would greatly expedite the revision of the work. It is further recommended that attendance at the U. S. P. Convention should not be a requirement for eligibility for service on the revision committee.—J. Am. Pharm. Assoc. 1920, v. 9, p. 277–278.

Farwell, Oliver A.: An editorial committee is stated to be an absolute necessity in order to maintain uniformity in procedure, especially in the description of the drugs of the U. S. P. Specific examples of the need for such a committee, with respect to the descriptions of botanical drugs, are cited.—Drug. Circ. 1920, v. 64, p. 87–88.

Kremers, Edward: The revision of the entire volume as practiced in the past, even though 90 per cent of the items in the U. S. P. are not in need of revision, should be replaced by a grade system, in which the item demanding revision can be dealt with at once.—J. Am. Pharm. Assoc. 1920, v. 9, p. 285.

Rusby, H. H.: It is suggested that the next committee of revision should endeavor to profit by investigations made by preceding committees and by the conclusions so reached. In order that this might be accomplished, it is recommended that a special subcommittee of the present revision committee be appointed to make a general index to the proceedings of all previous committees in order that the material may be made available. It is also suggested that there be close cooperation between the revisers of the U. S. P. and those of the N. F., for the purpose of securing greater uniformity of procedure regarding subjects treated in both books.—Am. Druggist, 1920, v. 68, No. 3, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 240.

Sayre, L. E.: There should be a special standing committee on standards which should cooperate with the United States Board of Agricultural Chemists in going over present standards and keeping in touch with the progress made along these lines. This committee should report its findings and recommendations to the U. S. P. committee of revision, which should be empowered to act upon them within prescribed limits.—Drug. Circ. 1920, v. 64, p. 87.

Anon.: An editorial states that certain formulas now included in the Pharmacopœia are not as satisfactory as those for the same remedies which were official 10 and 20 years ago. For this reason the revision committee should refrain from making changes in formulas and processes which have been used over a period of years with entire satisfaction to everyone concerned. Considerable labor and expense can be spared manufacturers, large and small, if such unnecessary changes are not made.—Drug. Circ. 1920, v. 64, p. 83.

Éwe, George E.: There should be a method of keeping the U. S. P. within easily handled size. The less potent, less important, and less used substances can be continued in the following revision, merely by reference to the previous revision, and adding any new standards or deleting or modifying any old ones. This practice is followed by the Secretary of the Treasury in announcing additions or modifications of existing Treasury decisions.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Nitardy, F. W.: A discussion of manufacturing by the retailer in its relation to pharmacopœial revision.—J. Am. Pharm. Assoc. 1920, v. 9, p. 889–891.

2. SCOPE.

Sollmann, Torald: With respect to the scope of the U. S. P., the tendency of the current revision should be continued, i. e., the progressive elimination of therapeutically superfluous articles and the addition of new substances of established merit. Desires or objections of the owner of a patent should not influence the admission of articles to the Pharmacopœia.—Drug. Circ. 1920, v. 64, p. 88.

Kramer, Henry: A discussion of the scope of the Pharmacopœia, with special reference to the subjects which must be taken into consideration in this connection.—J. Am. Pharm. Assoc. 1920, v. 9, p. 196–198; see also Charles H. LaWall, ibid., p. 195.

Kebler, L. F.: It is recommended that use by the medical profession generally be made the basis for including articles in the U. S. P., excluding, of course, the proprietary and secret preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 289.

Nixon, C. F.: The pharmacologist who insists that all drugs not susceptible to biological tests should be excluded from the Pharmacopœia is not as unreasonable as he who insists that every supposed medicinal substance should be included.—Drug. Circ. 1920, v. 64, p. 88–104.

Ewe, George E.: As a basis for the selection of chemicals for the U. S. P., it is recommended that the lists of purchases of chemicals by the larger and more representative drug trade jobbers and pharmaceutical manufacturers be employed. For crude drugs, the lists of purchases of these materials by the larger drug trade jobbers and pharmaceutical manufacturers should be used. In the case of manufactured products, only those which contain a single potent ingredient should be admitted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 289.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the limitations applied against the admission of patent and proprietary preparations and medicinal substances in the U. S. P. IX, be continued in the next revision.—Am. J. Pharm. 1920, v. 92, p. 547.

Rossen: An analysis of 50,000 prescriptions from the files of drug stores in various parts of the United States with the object of showing to what extent the various drugs and proprietary preparations are employed.—Pacific Drug Rev. 1920, v. 32, No. 9, p. 19–21.

1. NATURE AND CONTENT OF THE PHARMACOPŒIA.

Anon.: An editorial tracing briefly the history of the development of the U. S. P.—Pacific Drug Rev. 1920, v. 32, No. 2, p. 9–10.

LaWall, Charles H.: The present U. S. P. seems to be overbalanced in the direction of academic preciseness and to have lost something of the spontaneity and practicality of some of the earlier editions. This may all be necessary and unavoidable, but the present convention and the incoming committee of revision should not lose sight of the fact that after all the U. S. P. should be a practical guidebook first and a law book next.—Am. J. Pharm. 1920, v. 92, p. 383.

Gane, E. H.: The pharmacopœias of to-day are neither measures of the latest advances in materia medica nor of popular medicine. Nor are they, as of old, guides to the forms of medicines prescribed by physicians. They are becoming more and more manufacturers' books of standards and are used less and less by physicians and dispensing pharmacists.—Am. Druggist, 1920, v. 68, No. 5, p. 23; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gane, E. H.: Many authorities are looking for an enlargement of the Pharmacopœia to include as many substances as possible which are used in medicine and in the household and for which more detailed and specific standards should be prescribed.—Am.

Druggist. 1920, v. 68, No. 5, p. 23; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Fankhauser, William: The following additions are recommended: 1. Add descriptions of pharmaceutical preparations, especially of such classes as collodions, fluidextracts and oleoresins, which pharmacists do not ordinarily prepare themselves. 2. Add incompatibilities. 3. Add antidotes or antidotal measures. 4. Add therapeutic indications or actions. 5. Add a few typical formulas for making tablets. 6. Amplify the alcohol content table so as to include all official preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 288.

Committee on U. S. P. Philadelphia Coll. Pharm.: The recommendation is renewed that there should be added to each official liquid preparation containing alcohol a statement of the range of alcohol, by volume, contained in the product.—Am. J. Pharm. 1920, v. 92, p. 548.

Levinson, Benjamin A.: It is recommended that an appendix containing a list of poisons, symptoms of poisoning, and their antidotes be included in the U. S. P., X.—J. Am. Pharm. Assoc. 1920, v. 9, p. 289.

Wickham, Edward A.: Inasmuch as the U. S. P. is a "laboratory guide," it would seem desirable that working formulas for the preparation of chemical compounds be included in the next revision.—J. Am. Pharm. Assoc., 1920, v. 9, p. 296.

Hilton, S. L.: It is recommended that the historical introduction to the U. S. P. be made as brief as possible, thus effecting the saving of space and thereby making the book smaller.—J. Am. Pharm. Assoc., 1920, v. 9, p. 286.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that a statement of the preparations, in which an article is used, should be continued in the monographs, as in the U. S. P., IX.—Am. J. Pharm. 1920, v. 92, p. 548.

Osborne, O. T.: The admission of such items as iron wire, lemon peel, and nutmegs to the Pharmacopœia is objected to on the grounds that they are not used as such, but are merely employed in making certain official preparations.—Drug. Circ. 1920, v. 64, p. 88.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that in the next revision of the Pharmacopœia derivations of *definite* chemical compounds and definitions of organic chemicals, such as quinine sulphate, glycerine, etc., be omitted except when the definition is necessary for purposes of identification.—Am. J. Pharm. 1920, v. 92, p. 551.

Busch, Henry P.: It is suggested that all old titles be included in the proper alphabetical order in the body of the work printed in a distinctive type with some brief note of their disposition.—J. Am. Pharm. Assoc., 1920, v. 9, 297–298.

Davis, N. S.: It is suggested that drugs having a physiological or pathologic activity be indicated by printing their names in heavier type than is used for those drugs which are almost or quite valueless.—J. Am. Pharm. Assoc., 1920, v. 9, p. 295.

Lascoff, J. L.: Suggestions for the revision of the U. S. P. and N. F. A plea is made to the effect that the *modus operandi* for some of the galenicals be so simplified that the retail druggist will be able to prepare them himself and not be compelled to purchase them from the manufacturer.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

National Association of Drug Clerks: The U. S. P. methods are too complex. The work should be compiled upon more practical principles with reference to the retail drug trade. Principles and methods should be as practical as is possible, yet the standard should not be lowered, so as to encourage the retail drug trade to develop ethically the professional side of pharmacy by manufacturing to a greater degree than is done at present.—J. Am. Pharm. Assoc., 1920, v. 9, p. 295.

Rosengarten, George D.: Some notes on the organic chemicals of the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 282–284.

2. NOMENCLATURE.

Committee on U. S. P. Philadelphia Coll. Pharm.: The following recommendations are made relative to changes in the U. S. P. nomenclature:

1. That the general style of the present Pharmacopœia in the arrangement of Latin and English titles and of synonyms and abbreviations be continued.

2. That changes in official titles, Latin or English, be made only for very important reasons and that conservatism be the basic policy in dealing with all propositions which involve changes in titles which have already become more or less fixed by custom.

3. That, in the adoption of new official titles, practical consideration, especially with reference to their use in prescriptions, be deemed of greater importance than matters of etymology, or of classical analogy.

4. That with the introduction of new drugs, which have entered commerce under a vernacular title, the names be in every instance Latinized by the appending of a Latin ending, and not introduced unchanged as Latin titles in the Pharmacopœia, to be classified as indeclinable nouns. In other words, that the list of indeclinable nouns like Buchu, Gambir, Sumbul, etc., be not extended. This rec-

ommendation does not, however, imply the suggestion that indeclinable nouns already in the Pharmacopœia be changed.

5. That when a new chemical is made official, the name be Latinized by adding the termination, either "a" or "um," according to analogy or according to the nature of the chemical in question. That means that third declension endings be avoided and that the names of newly added chemicals be given terminations which will relegate them either to the first or to the second declension. This practice will greatly facilitate correct usage in prescription writing.

6. That cumbersome chemical names, such as Sulphonethylmethanum, which can not be expected to become an integral part of prescription nomenclature, be avoided, and that short coined names be used instead.

7. That the spelling of "gramme" be retained for the unit of metric weight, to avoid confusion with "grain" in handwritten formulas and prescriptions.

8. That the term "mil" as the unit of liquid measure be continued.

9. That in the constructing of new titles, either for chemicals or preparations, the use of names which are therapeutically suggestive, be avoided; but this suggestion does not imply that we favor the replacing of such well-fixed titles as compound cathartic pills.

10. That the abbreviations given under the official title in each monograph in the U. S. P. be carefully revised. It would seem to us that abbreviations which go no further than the dropping of a final "a" or any other declension ending, should be avoided.

11. That Latin titles in the index be accented, or that a complete list be printed of all official Latin titles with the accent indicated, or better, with accent and diacritical marks in conformity with the English pronunciation of Latin words.

A list of the Latin titles of the U. S. P., IX, with accents indicated, as suggested by Wallace S. Truesdell, A. M., instructor in Latin at the Philadelphia College of Pharmacy, is herewith appended with the hope that it may be of assistance in the next revision.

12. We recommend that the title "Virus vaccinicum" be replaced by the title "Virus vaccinum;" that the title "Serum antidiphthericum" be replaced by "Antitoxinum diphthericum;" that the title "Serum antitetanicum" be replaced by "Antitoxinum tetanicum;" that the adjective "purificatum" be avoided in the titles of sera and antitoxins.—Am. J. Pharm. 1920, v. 92, p. 556.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the committee on revision be given authority to coin short and euphonious names for synthetic chemicals, where the chemical name is too lengthy or unwieldy for a title, but that in all such cases the true chemical name be given as a synonym.—Am. J. Pharm. 1920. v. 92, p. 547.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that where several names are in extensive use in the drug trade, these should be given as official synonyms.—Am. J. Pharm. 1920, v. 92, p. 548.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the "V. S." following the designation of the normality, e. g., "tenth-normal sulphuric acid V. S.," be omitted. It is practically tautology.—Am. J. Pharm. 1920, v. 92, p. 554.

Davis, N. S.: The abbreviations in the U. S. P. are bad. They should be made as short as possible and easy to write.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Farwell, Oliver A.: With respect to the nomenclature for botanical drugs, the rules laid down by the Vienna Congress should be adopted, except where such rules prevent the adoption of the oldest names, beginning with the species Plantarum, 1753, and the genera 1754. Article 20 on "Nomina conservanda" should be disregarded. Article 22 should also be disregarded. All "family names" should end in "aceae" and be affixed to the oldest "root" applied to the "family group." Decapitalization of geographical names should be disregarded. Article 54–2 and article 55–2 should be disregarded.—J. Am. Pharm. Assoc. 1920, v. 9, p. 287.

Rusby, H. H.: A discussion of the codes of botanical nomenclature followed in the U. S. P., IX.—J. Am. Pharm. Assoc. 1920, v. 9, p. 670-671.

Merrill, E. D.: A criticism of Farwell's suggestion that the generic name *Camphorina* be adopted instead of *Cinnamomum* Blume, and of other proposed changes in nomenclature.—Bot. Gaz. 1920, v. 70, p. 84–86.

Viehoever, Arno.: An article discussing the origin of some common names for crude drugs.—J. Am. Pharm. Assoc. 1920, v. 9, p. 671-676.

Lampa, Robert R.: It does not appear to be advisable to include in the Pharmacopœia products under names with which but few people are familiar and which are rarely prescribed under the official designation. Phenylcinchoninic acid is a case in point.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494-495.

Myers, Harold B.: It is stated that to list methyl-morphine under the heading codeine and to retain the scientific name for diacetylmorphine is confusing and inconsistent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Scoville, Wilbur L.: Notes on the U. S. P. titles for the tincture and syrup of Tolu and for the tincture of aloe.—J. Am. Pharm. Assoc. 1920, v. 9, p. 280–281.

Strauss, F.: The second subtitle for liquor sodii chloridi physiologicus should read "Normal saline solution" instead of "Normal salt solution." This would prevent any possible misunderstanding as to whether a volumetric or other solution was intended.—Drug. Circ. 1920, v. 54, p. 216.

Wood, Horatio C., Jr.: Some of the official names of drugs are unnecessarily cumbersome. This is especially true of the names for some of the synthetics.—Drug. Circ. 1920, v. 64, p. 85.

Bureau of Standards: It is recommended that either the complete word "milliliter" or the correct abbreviation "ml." be used.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Wiley, H. W.: The introduction of the word "mil" for cubic centimeter was a mistake. There is already an established measure of money known as the "mil." The name also means a thousandth part of a dollar.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Scoville, Wilbur L.: It is generally understood that "mil" as a word was an afterthought. The absence of the period after the abbreviation was not noticed until after the Pharmacopœia had been put into type. To avoid the trouble and expense of punctuating the numerous abbreviations in the text, it was decided to call it a word instead of an abbreviation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 282.

Meyers, Harold B.: It is recommended that the term "cubic centimeter" be substituted for "mil." The reason advanced for the change made in the terminology of the U. S. P. IX, is debatable and not justifiable, considering the handicap it is placing on the introduction of the metric system among the members of the medical profession.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Couch, James F.: A protest against the use of the term cubic centimeter in the Pharmacopœia for the unit of measure known as the milliliter. It is recommended that we coin a new term and in so doing honor the name of one of our great pharmacists, Proctor, Squibb, or Lloyd as the physicists have done in the case of the ampere, volt, coulomb, ohm, and watt.—Bull. Pharm. 1920, v. 34, p. 412–413.

Abel Scholar: A criticism of the British Pharmacopœia with respect to the naming of the carbonates of lead and zinc. It is suggested that these compounds be referred to in the future as "hydrato-carbonates."—Chem. & Drug. 1920, v. 93, p. 1166.

Cooper, Zada M.: Notes on the origin of the synonyms of some pharmaceuticals.—Spatula, 1920, v. 27, No. 1, p. 7–9.

Emmanuel, Emm. J.: A note on the derivation and usage of the terms "pharmakognosie" and "drogognosie."—Schweiz. Apoth.—Ztg. 1920, v. 58, p. 129–130.

Anon.: A list of trade names is given under which phenolphthalein preparations and combinations are advertised.—J. Am M. Assoc. 1920, v. 74, p. 30.

Drummond, J. C.: It is suggested that the final "e" in vitamine be dropped so that the resulting term will be acceptable under the standard scheme of nomenclature adopted by the Chemical Society, which permits a neutral substance of undefined composition to bear a name ending in "in".—Biochem. J. 1920, v. 14, p. 660.

Ephrain, Fritz: Some observations on the question of the nomenclature of inorganic compounds.—Chem. Ztg. 1920, v. 44, p. 165.

Hackh, Ingo W. D.: A system of notations is described in which each organic compound and radical has a symbol that indicates its structure.—Chem. Age, London, 1920, v. 3, p. 392–394.

Ohmann, O.: A discussion of the value of the Stock nomenclature for chemical teaching, with remarks on the symbols for the elements.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 326–327.

Sebelien, John: Nomenclature of binary inorganic compounds. Comments on the subject matter assigned to a committee on nomenclature appointed at a meeting of Scandinavian natural science investigators held in Christiania in 1916.—Tidskr. Kem. 1920, v. 17, p. 242–245.

Boughton, Willis A.: A book review of a volume by Elton R. Darling entitled *Inorganic Chemical Synonyms and Other Useful Chemical Data.*—J. Am. Chem. Soc. 1920, v. 42, p. 1291–1292.

Anon.: A review of a new work by C. T. Kingzett entitled *Popular Chemical Dictionary.*—Perf. & Ess. Oil Rec. 1920, v. 11, p. 17.

Anon.: A review of a volume by I. F. and W. D. Henderson entitled *A Dictionary of Scientific Terms, Pronunciation, Derivation and Definition of Terms in Biology, Botany, Zoology, Anatomy, Cytology, Embryology and Physiology.*—Nature, 1920, v. 106, p. 498.

Passarge, G.: A review of a volume by Guiseppe Pinbellini entitled *Dizionario Comparato di Terminologia Farmaceutica in Lingua Italiana, Francese, Inglese e Tedesca.*—Pharm. Ztg. 1920, v. 65, p. 1001.

3. PUBLICITY.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the chairman of the committee on revision, with the approval of the executive committee, issue preliminary statements of the progress of the revision, and of the important changes contemplated.—Am. J. Pharm. 1920, v. 92, p. 548.

Fischelis, Robert P.: It is suggested that a subcommittee on publicity be appointed to have charge of the publicity given to the work of revision, to both the professional and the lay press. It is suggested that this committee be composed of five members and that it be operated under the supervision of the chairman of the revision committee.—J. Am. Pharm. Assoc. 1920, v. 9, p. 295.

Hilton, S. L.: It is recommended that the publicity feature carried out in the past revision of the U. S. P. be continued.—J. Am. Pharm. Assoc. 1920, v. 9, p. 295.

4. TIME OF PUBLICATION.

Kraemer, Henry: It should be mandatory that the Pharmacopœia be issued within one year after the meeting of the convention. This can be accomplished if the present Committee prepares a revision in the form of a supplement to be submitted to the U. S. P. Convention in 1920.—J. Am. Pharm. Assoc., 1920, v. 9, p. 285.

Francis, J. M.: On the basis of the daily use of the Pharmacopœia since its issue, the author is convinced that very few changes will be necessary, and he can see no logical reason why the Tenth Revision should not go to press within 12 months after the various subcommittees have been organized.—Drug. Circ. 1920, v. 64, p. 85.

Gane, E. H.: It seems only fair that at least a year should elapse between the date of publication and the time when the new work is made official. This would permit the proper adjustment of standards to meet the new conditions.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the committee of revision continue the practice of printing upon the title page of the Pharmacopœia a definite date when the revised Pharmacopœia shall supersede the previous edition. Due consideration should be given to the time necessary to dispose of stocks on hand and to prepare new formulas for the trade. The period between the time when the book becomes available to the trade and when it becomes official should be not less than six months.—Am. J. Pharm. 1920, v. 92, p. 549.

Kebler, L. F.: It is recommended that the interval between the date of issue of the Pharmacopœia and the time of its becoming effective should be at least one year in order to permit the trade to adjust itself to new conditions.—J. Am. Pharm. Assoc. 1920, v. 9, p. 285.

5. DOSES.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that there be established a special subcommittee on posology of the committee on revision; further, that in place of the statement of average doses, as shown in the U. S. P., IX, there be given *a range of commonly prescribed doses for adults*, and that this be accompanied by a statement that the doses given are to be considered as advisory for the guidance of the physician, not as compulsory, or restricted doses.

In the interest of uniformity and accuracy, a standard dosage measure should be described by the U. S. P.—Am. J. Pharm. 1920, v. 92, p. 547.

Lyons, A. B.: Average doses need not be discontinued in the U. S. P., but maximum permissible doses should be stated by all means. This matter is thought to be of sufficient importance to justify the enactment of a Federal statute to this effect.—Drug. Circ. 1920, v. 64, p. 87.

Raubenheimer, Otto: It is recommended that maximum single doses, as well as maximum daily doses, be given in the new U. S. P.-D.-A. Apoth.-Ztg. 1920, v. 41, p. 6–7.

Rusby, H. H.: The posology of the Pharmacopœia is in special need of revision. It is thought that most of the doses given in the U. S. P. are too small. Another serious defect is that of inconsistency between the doses of drugs and their preparation.—Am. Druggist, 1920, v. 68, p. 26–30; J. Am. Pharm. Assoc. 1920, v. 6, p. 246.

6. ANTIDOTES.

Mecklenburg, W.: A report on the comparative values of coarse and finely powdered ferric hydroxide as an antidote for arsenic poisoning.—Mitt. d. Materialprüfungsamts. 1919, v. 37, p. 110, through Pharm. Zentralh. 1920, v. 61, p. 700.

Irving, G.: Good results in the prevention of mercurialism have been obtained by the administration of sublimed sulphur by mouth.—Brit. M. J. 1920, v. 1, p. 149.

Barbour, Henry G. and Maurer, Lloyd L.: A report of investigations on the antagonistic action of tyramine to morphine.—Rep Therap. Res. Com. 1920, v. 9, p. 122–146.

7. WEIGHTS AND MEASURES.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the metric system of weights and measures only should be used throughout the U. S. P.—Am. J. Pharm. 1920, v. 92, p. 548.

Hensel, Samuel T.: Error in the U. S P., IX, page 656. In the second column of the second table of metric equivalents, 2312.17 mils are given as the equivalent of 7 pints, whereas the correct figure is 3312.17.—Rocky Mountain Drug. 1920, v. 33, No. 11, p. 8.

Miller, Adolph: Report of the special committee on metric weights and measures of the National Wholesale Druggists' Association.—Proc. N. W. D. A. 1920, p. 86–90.

Editorial: The recommendation of the metric committee of the Conjoint Board of Scientific Societies that the metric system should be compulsory in pharmacy is considered impractical.—Chem. & Drug. 1920, v. 93, p. 1338–1339.

Collins, W. D.: A note urges the use of metric units in purchasing reagents. A list of reagents is given with suggested unit weights.—J. Ind. & Eng. Chem. 1920, v. 12, p. 1206.

Wells, Horace L.: A discussion of the subject of analytical weighing, with special reference to the degree of accuracy obtainable by different methods.—J. Am. Chem. Soc. 1920, v. 42, p. 411–419.

Vogelenzan, E. H.: An investigation of the accuracy of weighings made with varnished weights.—Chem. Weekblad, 1920, v. 17, p. 453.

Hopkins, A. J., et al.: The standardization of weights. Instead of using one standard weight as a basis for comparison in standardizing a set of weights, a modification is described, consisting of the introduction of checks at fixed intervals in the progress of standardization.—J. Am. Chem. Soc. 1920, v. 42, p. 2528–2531.

Anon.: A table is given of the standard units of measurement as defined by the French law of April 2, 1919.—J. pharm. Belg. 1920, v. 2, p. 4–6.

Hervouet, D.: A discussion of the data given in the French Codex showing the number of drops in a gram of liquid. The results obtained by the author for a number of pharmaceutical preparations are compared with the data given in the Codex.—Bull. sc. pharmacol. 1920, v. 27, p. 247–251.

8. ADDITIONS AND DELETIONS.

Editorial: The granting to the committee of revision of the power to admit to the Pharmacopœia proprietary articles of established merit, provided they be not of secret constitution and that they be susceptible of accurate standardization, is stated to be a wise provision.—Am. Druggist, 1920, v. 68, No. 7, p. 39.

Editorial: Objection is raised to giving physicans the deciding vote on what shall be included in and omitted from the U. S. P. on the grounds that the book is not published in the interests of any single class but in the interests of the people as a whole.—Am. Druggist, 1920, v. 68, No. 4, p. 54.

Francis, J. M.: It is thought that the pharmaceutical representatives at the U. S. P. Convention will meet a very positive demand on the part of the representatives of the medical profession for the elimination of many products from the U. S. P., and that these opposing views will have to be compromised.—Drug. Circ. 1920, v. 64, p. 86.

Gane, E. H.: The tendency on the part of the U. S. P. revision committee to subordinate galenicals is probably the reason why no more attention has been given of late to the administration of medicines in convenient form. We still retain the old spirits, infusions, decoctions, and pills, while the more up-to-date forms of medication such as the tablet, tablet triturate, lozenge, ampoule, and capsule have been neglected. Surely tablets are worthy of inclusion in the U. S. P., especially as they are a distinctive contribution of America to pharmacy.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: It is believed that tablets, as well as pills and lozenges, should be recognized by the U. S. P. They are uniform in composition, convenient to handle, disintegrate rapidly in the stomach, and usually give prompt and certain action.—Proc. New Jersey Pharm. Assoc. 1920, p. 44.

Wickham, Edward A.: It is recommended that the U. S. P., X, include a chapter on ampoules, giving detailed instructions for filling and sealing ampoules and for rendering the solutions sterile.—J. Am. Pharm. Assoc. 1920, v. 9, p. 289.

Anon.: The National Association of Retail Druggists at a meeting held in St. Louis in September, 1920, passed a resolution to the effect that as alcoholic liquors were omitted from the latest U. S. P., and such liquors may be dispensed only by druggists, and upon physicians' prescriptions, and as such liquors at the present time have no standard prescribed, the present revision committee be petitioned to again establish standards for such liquors.—Midl. Drug. 1920, v. 54, p. 389.

Gray, William: Whisky, brandy, gin, and rum are narcotic stimulants, and as such should be handled, if at all, by pharmacists in the same manner as other narcotics. They should be incorporated in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1087.

Hommell, P. E.: Brandy and whisky should again receive official recognition, providing they are properly standardized, as any reputable physician can now prescribe them where actually indicated by a permit from the United States Government.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Gane, E. H.: It is suggested that the following be added to the U. S. P.: Arsphenamine, acetylsalicylic acid, diethylbarbituric acid, ammonium ichthyolsulphonate, barium sulphate for X-ray work, precipitated calamine, cantharidin, chloramine, compressed yeast, corpus luteum powder, digitalin, dichloramine, epinephrine, lactic acid bacilli, quinine valerate, radium bromide, surgical liquid soap, sodium arsanilate, solution of chlorinated soda (Dakin), Mexican scammony, sodium biphosphate, silver nucleinate, silver proteinate, theobromine, antimeningococcic serum, antipneumococcic serum, calomel ointment, staphylococcus vaccine, typhoid vaccine, brandy, and whisky.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the following additions be made to the Pharmacopœia: Acetylsalicylic acid, arsphenamine, barbital, barbital sodium, barium sulphate (purified for X-ray use), benzyl alcohol, benzyl benzoate, Carrell-Dakin solution, chloramine-T, chlorcosane, chloretone, di-chloramine-T, neoarsphenamine, peanut oil, picrotoxin, physostigmine sulphate, procaine (novocaine), scarlet red, silver albuminate, silver nucleinate, solution of benzyl benzoate (20 per cent), tincture of staphisagria.—Am. J. Pharm., 1920, v. 92, p. 550.

American Drug Manufacturers' Association: The scientific section of the American Drug Manufacturers' Association recommends that iron glycerophosphate be introduced into the new U. S. P., with the descriptions, tests and assay given in the N. F. IV.—J. Am. Pharm. Assoc., 1920, v. 9, p. 292.

Gane, E. H.: It is suggested that radium bromide be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc., 1920, v. 9, p. 366–370.

Hommell, P. E.: Adrenaline, the active constituent of the suprarenal gland, has a field of usefulness which is constantly widening and its addition to the U. S. P. would be quite proper.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Carus Chemical Co.: It is recommended that chloramine-T be admitted to the Pharmacopœia because of its recognized germicidal properties.—J. Am. Pharm. Assoc. 1920, v. 9, p. 292.

E. Clarke Co.: It is recommended that virgin peanut oil be introduced into the U. S. P. as a substitute for olive oil.—J. Am. Pharm. Assoc., 1920, v. 9, p. 290.

Corn Products Refining Co.: It is recommended that corn oil be introduced into the U. S. P., X, as it is a natural edible oil of high quality which has been tried out with great success in many pharmaceutical preparations.—J. Am. Pharm. Assoc., 1920, v. 9, p. 291.

Hommell, P. E.: An elixir of ammonium salicylate would be a valuable addition to the N. F., as the ammonium salt disturbs the digestion less than the sodium salt. It will also be found more agreeable for administration and cause much less depression.—Proc. New Jersey Pharm. Assoc., 1920, p. 43.

Éwe, George E.: It is recommended that emetine bismuthous iodide be introduced into the U. S. P., as it is widely used in the treatment of amoebic dysentery. It is also recommended that crude ammonium sulphoichthyolate be included in the new U. S.

P. Standards for the latter are given.—J. Am. Pharm. Assoc., 1920, v. 9, p. 290–291.

Gane, E. H.: It is suggested that precipitated calamine be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gray, William: A solution containing 15 per cent of chlorinated lime would be a valuable addition to the Pharmocopœia because it could be used as a basis for making either eusol or Dakin's solution.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1087.

Thum, John K.: It is suggested that a formula for liquid soap be introduced into the U. S. P. or N. F., as preparations of this nature are used very extensively in hospitals and other institutions. A formula and directions for preparing a satisfactory product of this type are presented.—Drug. Circ., 1920, v. 64, p. 174–175.

Hommell, P. E.: A good formula for a liquid soap should be given in the N. F., as the general public and medical profession have constant use for a satisfactory detergent of this nature.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Wickham, Edward A.: It is recommended that acetylsalicylic acid be introduced into the U. S. P., X., and that a formula for its manufacture be given, and that the word "aspirin" be employed as the official synonym.—J. Am. Pharm. Assoc. 1920, v. 9, p. 291; see also George E. Éwe, ibid.

Haines, Walter S.: A preparation of digitalis for hypodermic and intravenous use should be included in the next Pharmocopœia.—J. Am. Pharm. Assoc. 1920, v. 9, p. 292.

Hommell, P. E.: A number of new compounds of silver have come into existence during recent years and are now largely employed to subdue inflammatory conditions of the eye, throat and genito-urinary organs, without the irritating and painful action of nitrate of silver. Some of these merit inclusion in the U. S. P., as they are of value.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

Hommell, P. E.: Physiological experiments and clinical observation have demonstrated that in certain pathological conditions benzyl benzoate acts as efficiently as opium, without producing any narcotic effect. The indications are that this drug will be largely prescribed, and the revision committee will no doubt give this ester of benzyl alcohol and benzoic acid some consideration.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Lascoff, J. L.: Benzyl benzoate should be admitted to the U. S. P. as it is now prescribed by physicians with great frequency.—Drug. Circ. 1920, v. 64, p. 170.

Stone, W. H. and Éwe, George E.: Fluidextract of belladonna leaves should be included in the U. S. P., with assay method and standard, as it has a tremendous sale.—J. Am. Pharm. Assoc. 1920, v. 9, p. 290.

Walton, Lucius L.: A new class of preparations, "Petrolata medicata," should be introduced into the U. S. P., X.—J. Am. Pharm. Assoc. 1920, v. 9, p. 292.

Anderson, John F.: It is recommended that antipneumococcic serum and antimeningococcic serum be introduced into the U. S. P., IX.—J. Am. Pharm. Assoc. 1920, v. 9, p. 291.

American Drug Manufacturers' Association: It is recommended that hyoscyamus herb be included in the next U. S. P. This is defined as the dried stems, leaves, and flowering and fruiting tops of *Hyoscyamus niger* Linné (Fam. *Solanaceae*), yielding not less than 0.065 per cent of the alkaloids of hyoscyamus.—J. Am. Pharm. Assoc. 1920, v. 9, p. 294.

American Drug Manufacturers' Association: It is recommended that belladonna herb be introduced into the U. S. P. This is defined as the dried stems, leaves, and flowering and fruiting tops of *Atropa belladonna* Linné (Fam. *Solanaceae*), yielding not less than 0.35 per cent of total mydriatic alkaloids when assayed by the official process and not more than 18 per cent of total ash.—J. Am. Pharm. Assoc. 1920, v. 9, 293–294.

American Drug Manufacturers' Association: It is recommended that belladonna and capsicum plaster be introduced into the U. S. P. and that a standard of 0.125 per cent of alkaloids of belladonna and 5 per cent of powdered capsicum be established.—J. Am. Pharm. Assoc. 1920, v. 9, p. 294.

Anon.: The following additions to the French Pharmacopœia occur in the supplement recently issued: Diethylbarbituric acid, stovaine, novocaine, fluidextract of cinchona, hexamethylentetramine, oil of cade, piperazine hydrate, menthol ointment, solution of silver nitrate (2 per cent), iodated tincture of iodine, antidysenteric serum and antipneumococcic serum. The preface of the supplement contains an apology for not including such products as colloidal silver, ethyl morphine, emetine, the various arsenobenzol compounds, atoxyl, quinine formate, quinine ethylcarbonate, bismuth carbonate, sodium glycerophosphate, calomel ointment, etc.—Chem. & Drug. 1920, v. 92, p. 455.

Wiley, Harvey W.: In the presidential address delivered before the 1920 U. S. P. Convention it was recommended: 1. That whisky and brandy should be kept out of the U. S. P. 2. That drugs which have proven to be of little value should not be included in the U. S. P.—Drug. Circ. 1920, v. 54, p. 228.

Blair, Thomas S.: It is recommended that the following be deleted from the U. S. P.: Arnica, guaiac, mezereum, veratrum, taraxacum, and viburnum prunifolium.—J. Am. Pharm. Assoc. 1920, v. 9, p. 295.

Bliss, A. R.: The deletion of the following vegetable drugs (based on replies from physicians) is recommended: Althaea, aspidosperma, calumba, cannabis, caraway, chondrus, coriander, eriodictyon, frangula, gambir, guarana, humulus, kino, lactucarium, manna, matricaria, mezereum, musk, parsley fruit, pyrethrum, red rose, sabal, sanguinaria, red saunders, sassafras, scammony root, serpentaria, storax, sumbul, elm, and xanthoxylum. In addition, the author suggests that the following might also be dropped: Aconite, agar-agar, arnica, buchu, sweet almond, cimicifuga, gamboge, fennel, gelsemium, grindelia, guaiac, tar, quassia, pepo, sarsaparilla, spigelia, stillingia, pepper, taraxacum, triticum, viburnum prunifolium, and uva ursi.—J. Am. Pharm. Assoc. 1920, v. 9, p. 767–771.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the following be deleted from the U. S. P.: Aluminum hydroxide, ammoniated glycyrrhizin, bismuth and ammonium citrate, Ceylon cinnamon, chondrus, cottonseed oil, effervescent citrated caffeine, emulsion of almond, ethyl carbamate, fluidextract of staphisagria, glycerite of hydrastis, lithium carbonate, morphine (alkaloid), saccharated ferrous carbonate, serum antidiphthericum, serum antitetanicum (the purified form has, in practice, entirely superseded the last two), sesame oil, solution of sodium glycerophosphate, sweet almond, tincture of lactucarium (if the sirup is prepared from the drug), and uranium nitrate.—Am. J. Pharm. 1920, v. 92, p. 550.

Diner, Jacob: It is suggested that the following could be deleted from the Pharmacopœia without detracting from its value: Creosote water, cantharides cerate, compound infusion of senna, compound licorice mixture, compound licorice powder, aromatic spirit of ammonia, compound spirit of juniper, compound sirup of sarsaparilla, and the various troches.—Am. Druggist, 1920, v. 68, No. 4, p. 18; J. Am. Pharm. Assoc. 1920, v. 9, p. 493.

Gane, E. H.: It is suggested that the following be deleted from the U. S. P.: Acetone, gallic acid, hydrocyanic acid, ethyl carbamate, aluminum hydroxide, ammonium benzoate, sweet almond, bitter almond, bitter almond water, anise water, cinnamon water, creosote water, fennel water, spearmint water, peppermint water, silver oxide, aspidosperma, bromoform, caffeine sodio-benzoate, monobromated camphor, cantharides, wood charcoal, cerium oxalate, cotarnine hydrochloride, decoctions, capsicum plaster, rubber plaster, emulsion of almond, emulsion of asafetida, emulsion of oil of turpentine, extract of cimicifuga, extract of physostigma, extract of viburnum prunifolium, ferric hydroxide with magnesium oxide, aromatic fluidextract, fluidextract of aspidosperma, fluidextract of eucalyptus, fluidextract of pomegranate, fluidextract of guarana, fluidextract of sarsaparilla, compound fluidextract of sarsaparilla, fluidextract of stillingia, fluidextract of veratrum viride, fluidextract of xanthoxylum, guarana, compound infusion of senna, lactucarium, turpentine liniment, compound solution of iodine, solution of potassium citrate, lithium bromide, lycopodium, honey of rose, mezereum, musk, oleoresin of pepper, oil of tar, paraldehyde, phosphorus, pills of phosphorus, physostigma, effervescent potassium citrate, compound spirit of juniper, stillingia, strontium salts, sirup of lactucarium, tincture of aloes, tincture of musk, tincture of physostigma, tincture of veratrum viride, ointment of tannic acid, veratrum viride, and xanthoxylum.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Stone, W. H.: As there is little or no demand for fluidextract of pomegranate and aromatic fluidextract, it is recommended that they be deleted from the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 294.

Wickham, Edward A.: It is recommended that either Mistura Glycyrrhizæ Composita or Pulvis Glycyrrhiza Compositus be deleted from the U. S. P. These preparations are so vastly different in composition and are used for such totally different purposes that it appears as though one of them should be dropped or the name be changed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 295.

9. PURITY AND STRENGTH.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the statement in the present edition of the Pharmacopœia, under the heading "Purity and strength of pharmacopœial articles," be amended by eliminating the last clause relating to the standards of drugs in other countries.—Am. J. Pharm. 1920, v. 92, p. 548.

Ewe, George E.: As a source of standards for items in the U. S. P., the revision committee should use monographs submitted by the manufacturer or collector, modified or approved by the user, as represented by pharmaceutical, chemical, physiological, and botanical work reported in various publications, particularly along lines of examination of market supplies.—J. Am. Pharm. Assoc. 1920, v. 9, p. 290.

Gane, E. H.: The standards of the U. S. P. should apply to those articles, as set forth in the preface, which are used for medicinal purposes and not to bulk shipments from original sources of supply. There is need for a book of standards for drugs and chemicals in less frequent use, but this book should be gotten out by the Government, possibly under the direction of the United States Public Health Service, with the assistance of the other Government bureaus, the Association of Official Agricultural Chemists, medical and pharmaceutical experts, and importing and manufacturing houses.—Am. Druggist. 1920. v. 68. No. 5, p. 24; J. Am. Pharm. Assoc. 1920. v. 9, p. 366–370.

Kebler, L. F.: It is recommended that the definitions for U. S. P. items be carefully formulated so that they will include exactly what is desired and nothing more, as such definitions become part of the tests prescribed by the various food and drug laws.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Lampa, Robert R.: It does not seem advisable to adhere to extremely high standards in the case of those commercial products which are not readily available. Oil of sweet almonds is usually deficient in saponification number. It may vary only a few points in this respect, but answer every other requirement of the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

10. ATOMIC WEIGHTS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the atomic and molecular weights be based upon the latest available list of atomic weights, authorized by the International Committee on Atomic Weights.—Am. J. Pharm. 1920, v. 92, p. 549.

Thompson, Harry L.: It is suggested that the important physical data often used in pharmaceutical assaying be included in the table of atomic weights of the elements, that the list of elements and pharmaceutical chemicals be enlarged to include all chemicals known, or that it be left out entirely, and that logarithmic equivalents be given after the atomic and molecular weights. The table of multiples of some atomic and molecular weights should be deleted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1168.

Clark, F. W., et al.: Report of the International Committee on Atomic Weights for 1920-21.—J. Am. Chem. Soc. 1920, v. 42, p. 1761–1764; J. Chem. Soc. Lond. 1920, v. 117, p. 885–887.

Baxter, Gregory P.: The Twenty-sixth Annual Report of the Committee on Atomic Weights. The report covers the work on the determinations published during 1918 and 1919.—J. Am. Chem. Soc. 1920, v. 42, p. 327–333.

Aston, F. W.: A review of the literature and a report of experiments on the theory of isotopes and their relation to atomic weights.—Nature, London, 1920, v. 105, p. 617-619.

Fehrle, Karl: Attention is called to a new periodic relation between the atomic weights of the chemical elements.—Physik. Ztschr. 1920, v. 21, p. 162–166.

Miall, Stephen: A diagrammatic study of atomic weights and atomic numbers. A list of elements with their atomic weights, calculated according to the formula described, is given.—Chem. Age, 1920, v. 2, p. 168–170, 350–351.

Ono, Suminosuke: A relation among the atomic weights of the chemical elements is shown by a formula evolved by the author.—Proc. Phys. Math. Soc. Japan, 1919, v. 1, p. 231–236, through Chem. Abstr. 1920, v. 14, p. 380.

Stern, O., and Volmer, M.: A discussion of the question: Are the divisions of the atomic weights from whole numbers explainable by isotopy?—Ann. Physik. 1919, v. 59, p. 225–238, through Chem. Abstr. 1920, v. 14, p. 3189.

Richards, Theo. W., and Krepelka, Henry: The value of the atomic weight of aluminum based on the synthesis of pure $AlBr_3$ is found to be 26.963. Silver is taken as 107.88.—J. Am. Chem. Soc. 1920, v. 42, p. 2221–2232.

Moles, E., and Batuecas, T.: A physico-chemical revision of the atomic weight of fluorine, together with a contribution to the chemistry of fluorine.—Anales soc. española fis. quim. 1920, v. 18, p. 211–273.

Moles, E., and Batuecas, T.: The atomic weight of fluorine calculated from the molecular weight of methyl fluoride is 19.002.—J. chim. phys. 1920, v. 18, p. 353–358.

Bilecki, Alois: A discussion of the atomic weight of hydrogen and its relation to Prout's hypothesis. The atomic weights of phosphorus and barium in relation to that of silver are also discussed.—Ztschr. anorg. Chem. 1920, v. 110, p. 335–344.

Baxter, Gregory P. et al.: A revision of the atomic weight of silicon based on the analysis of silicon tetrachloride places the value at about 28.1 instead of 28.3 as now accepted by the International Committee on Atomic Weights.—J. Am. Chem. Soc. 1920, v. 42, p. 1194–1197.

Baxter, Gregory P., and Starkweather, Howard W.: A revision of the atomic weight of tin based on the electrolytic determination of tin in tin chloride. The final average obtained was 118.703.—J. Am. Chem. Soc. 1920, v. 42, p. 905–917; see also B. Brauner and H. Krepelka, ibid., p. 917–928.

Richards, Theodore W., and Sameshima, Jitsusaburo: The atomic weight of lead from a Japanese mineral was found to be 207.13.—J. Am. Chem. Soc., 1920, v. 42, p. 928–930.

Bilechi, Alois: From comparisons made through the atomic weight of manganese, it is concluded that, if the atomic weight of silver is taken as 107.88, the atomic weight accepted for oxygen should be 15.982.—Ztschr. anorg. Chem. 1919, v. 108, p. 113–118, through J. Chem. Soc. Lond. 1920, v. 118, part 2, p. 26.

Classen, A., and Ney, O.: The atomic weight of bismuth, based on the analysis of bismuth triphenyl, is found to be 209.—Ber. deutsch. chem. Gesellsch. 1920, v. 53B, p. 2267–2270.

Hönigschmid, O.: In a revision of the atomic weight of bismuth, the value is given as 209.02, referred to silver 107.88.—Chem.-Ztg. 1920, v. 44, p. 340.

James, C., and Stewart, O. J.: A determination of the atomic weight of thulium gave the value 169.44.—J. Am. Chem. Soc. 1920, v. 42, p. 2022–2023.

3. NONPHARMACOPŒIAL STANDARDS.

1. FORMULARIES—GENERAL.

LaWall, Charles H.: A review of Magendie's formulary with comments on its contents.—Am. J. Pharm. 1920, v. 92, p. 216–230.

Schamelhout, A.: Tentative monographs are submitted for certain drugs and chemicals which have been proposed for introduction into the Belgian National Formulary. The following are the items covered: antipyrine phenylglycolate, monochloral antipyrine, aluminum acetotartrate, oxycamphor, pyroligneous acetic acid, valeric acid, crude hydrochloric acid, camphoric acid.—J. pharm. Belg. 1920, v. 2, p. 8, 49–50, 112, 132, 156 and 225.

Anon.: A catechism of the *Homeopathic Pharmacopoeia of the United States* in which the view is expressed that the work should be recognized as a standard by the pure food and drugs act, and that it should be incorporated in the U. S. P., if practicable.—J. Am. Inst. Homeopathy, 1920, v. 12, p. 547–549.

Anon.: In a review of the revised edition of the *London Insurance Pharmacopoeia*, formulæ for 34 new preparations are given.—Chem. & Drug. 1920, v. 92, p. 767.

2. NATIONAL FORMULARY.

The National Formulary is published by the American Pharmaceutical Association. It is revised every 10 years, the actual work of revision being done by a committee appointed for that purpose. The following are the members of the committee as constituted at present:

W. L. Scoville, chairman: Clyde M. Snow, Otto Raubenheimer, Leonard A. Seltzer, Harry V. Arny, H. Engelhardt, E. L. Newcomb, E. Fullerton Cook, H. A. B. Dunning, Samuel L. Hilton, Charles H. LaWall, George M. Beringer, P. Henry Utech, Bernard Fantus, O. A. Farwell.

GENERAL PRINCIPLES TO BE FOLLOWED IN REVISING THE NATIONAL FORMULARY.

Scope and purpose of the National Formulary: The purpose of the National Formulary is to supply definite formulas for preparations sufficiently used in medical practice throughout the United States and its possessions, for which formulas are not included in the United States Pharmacopœia; to provide standards and tests for the identity, quality, and purity of the essential ingredients used in these formulas that are not standardized by the Pharmacopœia, so that uniformity in physical properties and action of constituents will be assured.

Admissions: Any formula in sufficient use may be admitted into the National Formulary, but no proprietary or trade-marked name shall be applied thereto, nor shall it be the aim of the Formulary to supply imitations of such proprietary or trade-marked articles.

Construction of formulas: Formulas shall be listed in alphabetical sequence, and, whenever possible, general formulas for classes may be adopted, the metric system of weights and measures only to be used.

Arrangement of subject matter: The National Formulary shall be arranged in three parts. All formulas shall be in Part I, standards for nonpharmacopœial ingredients to constitute Part II, and special reagents, tests, and reference tables to be in Part III.

To accept pharmacopœial principles: The principles adopted by the U. S. Pharmacopœial Convention, to be followed in revising the Pharmacopœia, relating to nomenclature, changes in titles, synonyms, abbreviations, purity rubric, international standards, physical constants, standard temperature, pharmacognostic descriptions, powdered drugs, solubilities, and doses, shall be followed in the revision of the National Formulary.

Assay processes: Assay processes for as many of the potent drugs and preparations as may be found practicable shall be introduced into the National Formulary.

Therapeutic responsibility: The National Formulary does not assume any responsibility for the therapeutic value of any preparation.

Alcoholic percentage: It is recommended that, whenever practicable, the range of the content of absolute alcohol by volume be stated in the National Formulary, accompanying the text for each preparation containing alcohol.

Enumeration of National Formulary preparations in which official substances are used: It is recommended that there be appended after each article in the text a list of N. F. preparations in which it is an active essential ingredient, and that there also be given a list of U. S. P. substances used as active ingredients and the National Formulary preparations into which they enter.

Date of adoption: The National Formulary committee shall establish a definite date when the Fifth Edition of the National Formulary shall go into effect.

Publicity: The National Formulary committee shall publish from time to time abstracts of important changes or proposed new monographs and invite comment and suggestion before final adoption.

Modified dose statement: There shall be appended to each dose statement the amount of active ingredients in the dose given.

Alcohol in formulary preparations: The proportion of alcohol entering into each formula in the N. F. shall be carefully studied and fixed at the minimum amount necessary for the therapeutic activity, solution, permanency, or preservation of the preparation.

Scoville, Wilbur L.: Report of the N. F. committee to the American Pharmaceutical Association.—J. Am. Pharm. Assoc. 1920, v. 9, p. 717–718.

Scoville, Wilbur L.: A statement of the general principles to be followed in revising the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 852–855.

Anon.: At a recent meeting of the National Formulary committee, it was decided that the policy of disclaiming responsibility for the therapeutic value of any preparation will be continued. However, the committee will not permit glaring therapeutic incompatibilities, as it is thought that the pharmacist is expected to know enough about therapeutics to detect and prevent the administration of dangerous doses or dangerous incompatibilities.—Bull. Pharm 1920, v. 34, p. 309.

Cooper, Zada M.: For admission to the N. F., it should not be sufficient for a preparation to be in general use, but it should also have therapeutic value.—Bull. Pharm. 1920, v. 34, p. 143.

Éwe, George E.: The following rules are submitted as suggestions for governing admissions and deletions to the N. F.: In the case of chemicals and crude drugs, data should be obtained from lists of purchases of chemicals and crude drugs by the large and more representative drug trade jobbers and pharmaceutical manufacturers. In the case of pharmaceutical products, the data should be obtained from lists of purchases by jobbers and the output of manufacturers. The items of which the output is small and which are not purchased to a great extent by jobbers should be deleted. The less potent, less important, and less commonly used substances should be continued in the new edition merely by name, referring to the previous edition for descriptions of methods and tests.—Am. J. Pharm. 1920, v. 92, p. 165–167.

Lloyd, John Uri: A brief history of the origin and development of the National Formulary, with some comments on its scope. It is recommended that the simples now contained in the N. F. and prescribed by physicians should be put back into the U. S. P.—Bull. Pharm. 1920, v. 34, p. 96–97.

Asher, Philip: The N. F. is a well known and established work and serves very valuable functions. To discontinue its publication would be a disastrous blow to pharmaceutical advancement. To the druggist who depends entirely upon the manufacturing pharmacist it spells little; but to the progressive pharmacist it implies a great deal.—Bull. Pharm. 1920, v. 34, p. 240.

Arny, H. V.: In a discussion of the N. F., it is stated that a secondary book is essential because of the views of certain eminent medical authorities who insist that the U. S. P. should not be the people's collection of drugs, but an inclusive drug and chemical club, with all the medicines save the aristocrats barred out.—Bull. Pharm. 1920, v. 34, p. 142.

Cook, E. F.: It is stated that the following classes of preparations should be included in the N. F.: Newly devised preparations of merit which have not been sufficiently tried to admit them to the U. S. P.; meritorious preparations which through various causes have gradually lost popularity so that they are no longer given a place in the U. S. P.; preparations which have been used for many years by both the physicians and the laymen, but are not of sufficient importance to find a place in the U. S. P.; preparations the formulas of which are modern and for which the pharmacist should have standards and which are not likely to receive pharmacopœial recognition.—Bull. Pharm. 1920, v. 34, p. 187–188.

Kuever, R. A.: Notes on the revision of the N. F. With respect to scope, it is the author's opinion that medicinal substances of therapeutic value, but still in the experimental stage, should be admitted to the N. F. Likewise, medicinal substances in the U. S. P. which are diminishing in importance, due to the discovery of more efficacious remedies, should be still given recognition by the N. F. until a time when such recognition is no longer necessary.—Bull. Pharm. 1920, v. 34, p. 99–100.

Day, Wm. B.: The N. F. serves a useful purpose in providing standards for the more or less widely used drugs which have been deleted from the U. S. P. But its greatest line of development must be in its formulas rather than in its standards. Both therapeutic value and pharmaceutical elegance must be considered. The mere fact that a preparation without demonstrable therapeutic value is in current use should not be sufficient to entitle it to a place in the N. F. Neither should the N. F. exploit new remedies the therapeutic value of which has not been demonstrated. Bull. Pharm. 1920, v. 34, p. 240–241.

England, Joseph W.: It is believed that the general principles of the N. F. are substantially sound and that the book meets the needs of both the workaday medical and pharmaceutical professions. The general opinion appears to be that the work should be expanded rather than made less comprehensive.—Bull. Pharm. 1920, v. 34, p. 142.

Farwell, Oliver A.: The N. F. probably would command a higher respect if qualifications for admittance thereto were based entirely upon therapeutic values, excluding any preparation that could be used as an alcoholic beverage. To give official backing to remedies that are inert and valueless, no matter how much they may be in general use, smacks of charlatanism.—Bull. Pharm. 1920, v. 34, p. 189.

Hilton, S. L.: It is stated that many changes are necessary if the N. F. is to remain a standard work. The medical, chemical, and pharmaceutical parts must be thoroughly considered and the revision made accordingly.—Bull. Pharm. 1920, v. 34, p. 239.

Jones, Ernest R.: A discussion of certain points in N. F. revision. The N. F. should serve as a supplement to the U. S. P., containing only formulas which to the best of our knowledge are correct, and which are not in sufficient demand to warrant their inclusion in the latter book. It is also recommended that the physician be given a part in the revision of the book.—Bull. Pharm. 1920, v. 34, p. 100.

Jordan, C. B.: In commenting on the scope of the N. F., it is stated that we need official formulas for a great number of preparations that are not in the U. S. P., and perhaps never will be. Many druggists are called upon to manufacture these preparations, and formulas and directions for their preparation should be given in the N. F. Any questionable preparations which might be used as alcoholic beverages should be omitted.—Bull. Pharm. 1920, v. 34, p. 188.

Kraemer, Henry: At the present time the National Formulary serves as a repository for all the drugs deleted from the U. S. P. This has served to bring the work into disrepute. The American Pharmaceutical Association should put itself on record to the effect that the N. F. shall limit its scope to the formulas of those preparations which are widely used, which are nonpharmacopeial, and for which uniform methods are necessary. The introduction into the N. F. of dangerous drugs, for which no standards can be framed, is criticized.—Bull. Pharm. 1920, v. 34, p. 97–98.

Kremers, Edward: It is altogether wrong to regard the N. F. as a lumber chamber for the U. S. P. The entire situation arises from a wrong conception of the dignity of the U. S. P.—Bull. Pharm. 1920, v. 34, p. 189.

Lyman, Rufus A.: It is stated that the N. F. is to a large degree a dumping ground for the U. S. P. Further, that it stands for things that are anything but scientific and tends to promote and prolong the polypharmacy of former ages. It is suggested that the council on pharmacy and chemistry of the American Medical Association be induced to cooperate with the American Pharmaceutical Association and that some or all of the features of the new and nonofficial remedies be embodied in the N. F.—Bull. Pharm. 1920, v. 34, p. 141–143.

Raubenheimer, Otto: In discussing the scope of the N. F., the view is expressed that the book should contain those drugs and preparations which physicians prescribe. The deletion of certain remedies which may possibly be used for beverage purposes is opposed on the grounds that they have a real medicinal value.—Bull. Pharm. 1920, v. 34, p. 140–141.

Ruddiman, E. A.: The N. F. is intended to contain those agents which are used to such an extent that they should receive some official recognition, but which were omitted from the last edition of the U. S. P. It is thought that a goodly number of formulas now in the N. F. and also some of the newer classes of preparations, as inunctions and mulls, might be dropped.—Bull. Pharm. 1920, v. 34, p. 189.

Sayre, Lucius E.: Hope is expressed that the N. F. will not degenerate into a recipe book but that it will develop until it acquires the dignity of the U. S. P.—Bull. Pharm. 1920, v. 34, p. 98–99.

Schneider, Albert: The view is expressed that the really reliable and valuable information should be taken out of the N. F. and transferred to U. S. P. and that the publication of the N. F. should cease. The entire N. F. may contain as many as 25 really useful and valuable articles—not more than that.—Bull. Pharm. 1920, v. 34, p. 239–240.

Spease, Edward: In commenting on the National Formulary, it is stated that one of the most unfortunate things for professional pharmacy was the issuing by the Prohibition Commissioner of a list of U. S. P and N. F. preparations which can be used as beverages. Much information of doubtful value was thus placed in the hands of the laiety.—Bull. Pharm. 1920, v. 34, p. 139.

Wisner, E. H.: In discussing the scope of the N. F., the author expresses the opinion that all preparations which may be used as beverages should be deleted. Those items which are dropped from the Pharmacopæia but still used by physicians should be given a place in the N. F.—Bull. Pharm. 1920, v. 34, p. 143.

Ewe, Geo. E.: A number of suggestions for the revision of the fourth edition of the N. F. are presented.—Am. J. Pharm. 1920, v. 92, p. 165–173.

Gane, E. H.: It is thought that the National Formulary is the proper place for formulas for dental and oral preparations and for disinfectants and other hygienic aids. The best methods for determining the germicidal efficiency of the latter should also be included.—Am. Druggist. 1920. v. 68. No. 5. p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Anon.: Tentative list of additions to and deletions from the N. F., IV, adopted by the National Formulary committee. Something over 170 items are recommended for deletion and only 6 items proposed for admission.—Drug & Chem. Markets, 1920, v. 7, p. 325–326.

Editorial: With reference to the list of drugs and preparations recommended by the N. F. revision committee for deletion, most of the pharmacists in the State of Washington are in favor of salvaging from three to a dozen of these preparations. Among the items which are mentioned for retention in the N. F. are liniment of ammonium iodide, the glycerogelatins of zinc, fluid extract of conium, syrup of codeine, the petroxolins, decolorized tincture of iodine, elixir of viburnum prunifolium and some of the wines.—Pacific Drug Rev. 1920, v. 32, No. 11, p. 9–10.

Éwe, Geo. E.: Soluble manganese glycerophosphate and quinine formate are suggested as items for admission to the N. F.—Am. J. Pharm. 1920, v. 92, p. 167–168.

Fantus, Bernard, and Snow, Clyde M.: Two dentifrice formulas recommended for introduction into the N. F. are presented. One of these formulas yields a liquid preparation and the other a powder.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1103–1104.

Faser, H. M.: Formulas are given for the preparation of elixir of iron, quinine and strychnine phosphates, elixir of lactated pepsin, and elixir of sawpalmetto and santal compound.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1088–1089.

Lascoff, J. L.: It is suggested that the following be included in the new N. F.: Elixir of iron and quinine phosphates; emulsion of creosote carbonate; salicylated soap plaster; more infusions and decoctions; compound wine of glycerophosphates; a chapter on tablet triturates, compressed tablets and hypodermic tablets; a chapter on ampules.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

Lascoff, J. L.: It is stated that the following articles are seldom prescribed and could be deleted from the N. F.: styptic collodion; croton oil collodion; elixir cinchona alkaloids; elixir of cinchona alkaloids, iron and calcium lactophosphate; compound elixir of corydalis; compound elixir of formates; emulsion of petrolatum; fluid glycerates; antiseptic solution of pepsin; compound mixture of chloroform and morphine; mixture of oil of tar; oleate of cocaine; some of the petroxolins; compound spirit of ether; compound syrup of asarum; syrup of morphine and acacia; compound syrup of white pine with morphine; ointment of zinc stearate; and wine of wild cherry.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

Lampa, Robert R.: It is recommended that the solution of iron albuminate be deleted from the N. F. because of its lack of stability and because of the fact that it is seldom prescribed.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

3. RECIPE BOOK.

Anon.: Popular formulas for a number of pharmaceutical preparations are presented.—Am. Druggist, 1920, v. 68, No. 4, p. 38.

Anon.: Formulas are given for the preparation of a number of effervescent purgative salts.—Chem. & Drug. 1920, v. 92, No. 16, p. 55.

Anon.: Formulas are given for making pharmaceutical preparations intended for a variety of purposes.—Vierteljahres. prakt. Pharm. 1920, v. 17, p. 23–28, 62–79, 112–119, 155–163.

4. NEW AND UNOFFICIAL REMEDIES.

NEW REMEDIES.

Anon.: A list, with short descriptions, of new remedies and trade-name preparations introduced during the period 1918 to 1920.—Am. Druggist, 1920, v. 68, No. 11, p. 41–43.

Anon.: Brief descriptions are given of several new and nonofficial remedies.—Pennsylvania M. J. 1920, v. 24, p. 22–23.

Anon.: Brief descriptions are given of methods of preparation, properties, and uses of new remedies introduced during the year 1920.—Vierteljahres. prakt. Pharm. 1920, v. 17, p. 1–19, 51–62, 93–112.

Holste, Arnold: Notes on some new remedies, including short descriptions of the properties and uses and comments on dosage.—Deutsch. med. Wchnschr. 1920, v. 46, p. 691, 729–732.

Anon.: Short descriptions are given of new remedies introduced during the year 1919.—Pharm. Weekbl. 1920, v. 57, p. 589–592.

Rabow, S.: A review of the new remedies introduced during the year 1919.—Chem.-Ztg. 1920, v. 44, p. 109–110, 138–140, 146–147.

Kollert, V.: A report of studies relative to the diuretic action of novarsurol.—Therap. Gegenw. 1920, v. 61, p. 340–344.

Gesellsch. f. chem. Ind. Basel.: D. R. P. 322, 335 describes the preparation of combinations of alkaloids of the morphine series with a derivative of barbituric acid.—Rev. prod. chim. 1920, v. 23, p. 575.

Bylsma, U. G.: The pharmacological action of "vusin" and of "eukupin" (isoamylhydrocupreine) agrees with that of quinine hydrochloride. The comparative physical, chemical, and biological properties are given in detail.—Ztschr. exper. Med. 1920, v. 11, p. 257–336.

Anon.: The requirements as given in the new supplement to the Ph. Fr. for piperazine hydrate are stated.—Chem. & Drug. 1920, v. 92, p. 456.

Grau, C. A.: A tabular report is given of the analyses of 10 commercial preparations labeled potassium guaiacol sulphonate.—Bull. sc. pharmacol. 1920, v. 27, p. 566–576.

Hamilton, Herbert C.: Hemostatic serum is stated to be a reliable hemostatic agent. A method of assaying the serum is described.—J. Lab. & Clin. Med. 1920, v. 5, p. 574–582.

Jacquemet and Goubeau: An account of the use of carbon tetrachloride in surgery, dermatology, and as a parasiticide.—Bull. soc. therap. 1920, v. 3, p. 110, through Bull. sc. pharmacol. 1920, v. 27, p. 558.

Meidner: A comprehensive survey of the new remedies of the opium group: narkophin, laudanon, holopon, glykonekon, pavon, parakodin, paramorfan, eukodal, and papaverine.—Bull. klin. Wchnschr. 1920, v. 57, p. 46.

Reitstötter, J.: A compilation of colloidal metals and other substances (mostly organic salts of metals) used in therapy on the basis of German patents.—Oesterr. Chem.-Ztg. 1920, v. 23, p. 144–147, through Chem. Abstr. 1921, v. 15, p. 1963.

Schamelhout, A.: A monograph on chrysophanic acid proposed for introduction into the Belgian pharmacopœia is submitted.—J. pharm. Belg. 1920, v. 2, p. 248.

Schamelhout, A.: A general article in which the preparation, physical, and chemical properties, and uses of acriflavine are reviewed. Formulas are given for the preparation of acriflavine, gelatin, and a starch mucilage.—J. pharm. Belg. 1920, v. 2, p. 997–999.

Sollmann, T.: From experiments on earth worms and dogs, it is concluded that carvacrol deserves a trial as an anthelmintic, using the same routine as for thymol.—J. Pharmacol. & Exper. Therap. 1919, v. 14, p. 251.

Leech, Paul N.: A report of studies on the digestion of the tannin compounds used as intestinal astringents by artificial mixtures.—Rep. Chem. Lab. Am. Med. Assoc. 1920, v. 13, p. 7–20.

For additional descriptions of new remedies and data on their composition, see Pharm. Monatsh. 1920, v. 1, p. 8–12, 23–29, 40–44, 56–58, 71–74, 83–85, 97–99, 116–118, 129–132, 162–167, 183–185; Pharm. Ztg. 1920, v. 65, p. 20, 163, 189, 200–201, 238, 265, 275, 313, 371–373, 521, 609, 802–804, 844–845; Südd. Apoth.-Ztg. 1919, v. 59, p. 716–718, 742–743, 796–797, 807–808, 868–869, 996–997.

Anon.: A book review calls attention to the fifth edition of a volume by G. Arends entitled *New Remedies and Pharmaceutical Specialties*.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 37.

SYNTHETICS.

Lübecke: Short descriptions are given of the methods of preparation and the properties and uses of new synthetic remedies and pharmaceutical specialties.—Vierteljahres. prakt. Pharm. 1920, v. 17, p. 129–152.

Hofmann: A general address on the production of synthetic drugs. The author concludes from experience that the relationship between chemical structure and physiological action has been exaggerated.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 273–277.

Hewitt, J. T.: Two lectures embodying brief descriptions of the most important synthetic drugs, including in many instances the structural formulas.—J. Roy. Soc. Arts, 1920, v. 68, p. 625–635 and 639–648.

Anon.: A review of British progress in the manufacture of synthetic drugs and chemicals.—Chem. Age, 1920, v. 2, p. 6–7.

Schmidt, H.: An address dealing with the pharmaco-synthesis of organic antimony compounds.—Pharm. Ztg. 1920, v. 65, p. 872–874.

Nagai, Nanayoshi: The synthetic preparation of adrenaline from diacetylprotocatechuic-aldehyde is described.—J. Chem. Soc. Lond. 1920, v. 118, p. 43.

Puyal and Montague: A report of studies on the urethane series of hypnotics. This series is stated to be characterized by high hypnotic value, low toxicity, and absence of secondary effects.—Bull. soc. chim. 1920, v. 27, p. 857–862.

Lumière, Auguste and Perrin, Felix: The properties of a new class of hypnotics, the dialkylhomophthalimides, are described. Diethylhomophthalimide is found to have the strongest hypnotic action of the four compounds studied.—Compt. rend. acad. sc. 1920, v. 171, p. 637–639.

Madinaveitia, A.: A contribution to the study of the sympathomimetic amines. I. The amino derivatives of naphthalene.—Anales soc. espanola fis. quim. 1920, v. 18, p. 66–78.

Schamelhout, A.: A monograph on valerinate of diethylamide (valyl) proposed for introduction into the *Belgian National Formulary* is submitted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 33.

White, E. C.: Descriptions are given of the methods of preparation and properties of some mercurial derivatives of the phthaleins which are used in the treatment of genito-urinary infections.—J. Am. Chem. Soc. 1920, v. 42, p. 2355.

Macht, David I.: A report on the anthelmintic action of benzyl alcohol and benzyl esters *in vitro*.—J. Pharmacol. & Exper. Therap. 1920, v. 14, p. 323–326.

Ritz, H.: A report of experimental researches on the action of allyltheobromine, a new diuretic.—Arch. intern. Pharmacod. et Thérap. 1919, v. 25, p. 361–378.

Cheinisse, L.: A discussion of the value of luminal in the treatment of epilepsy.—Presse Médicale, 1920, v. 28, p. 598–599.

Mossler: A review of the fourth edition of a book by Siegmund Fränkel entitled *Die Arzneimittel-Synthese auf Grundlage der Beziehungen zwischen chemischen Aufbau und Wirkung für Ärzte, Chemiker und Pharmazeuten.*—Oesterr. Chem. Ztg. 1920, v. 23, p. 79.

PATENTS AND TRADE-MARKS.

Anon.: A discussion of some patent and trade-mark reforms which meet the approval of the manufacturers of pharmaceutical preparations.—Proc. Am. Drug. Mfg. Assoc. 1920, p. 171–182.

Lynn, Charles J.: Report of the committee on trade-marks of the National Wholesale Druggist's Association.—Proc. N. W. D. A. 1920, p. 94–112.

Beaumont, J. H.: A series of articles discussing the British patent system.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 222–224, 255–257, 312–315, 400–401.

American and British patents are described in Chem. Abstr. and J. Soc. Chem. Ind.

Anon.: For descriptions of new Swiss patents, see Schweiz. Apoth.-Ztg. 1920, v. 58, p. 97–98.

Information relative to German patents and trade-marks is given in Pharm. Ztg. 1920, v. 65.

CHEMOTHERAPY.

Richaud, A.: A résumé of the principles and methods of chemotherapy.—Presse Médicale, 1920, v. 28, p. 613–617.

Karrer, P.: A review of the development of chemotherapy.—Schweiz. Chem.-Ztg. 1920, v. 40, p. 481–491.

Hopp, George A.: A review of the chemotherapy of syphilis, tuberculosis, and cancer.—Hahnemann Month. 1920, v. 55, p. 422–426.

Schroeder, G.: A complete review of the literature on specific, chemo, and symptomatic treatment of tuberculosis during 1917 and 1918. A bibliography is included.—Ztschr. Tuberk. 1919, v. 30, p. 215–232, through Chem. Abstr. 1920, v. 14, p. 1847.

Rénon, L.: An investigation of the value of the sulphates of the rare elements in the treatment of tuberculosis. Of the sulphates of yttrium, lanthanum, and neodymium, only the latter gave demonstrable amelioration when administered subcutaneously to tubercular patients.—Bull. mem. soc. med. hop. 1920, v. 36, p. 602–605, through

Chem. Abstr. 1920, v. 14, p. 2661; see also Esnault and Bron, Bull. mem. soc. med. hop. 1920, v. 36, p. 606–616.

von Linden: A report of chemotherapeutic studies on tuberculosis, in which copper and methylene blue salts were used.—Beitr. klin. Tuberk. 1919, v. 40, p. 171–224; v. 43, p. 87–135 and 1920, v. 44, p. 117–165, through Chem. Abstr. 1920, v. 14, p. 3279.

Hollande, A. Ch., and Gaté, J.: A report of experimental studies to determine the value of intraperitoneal injections of copper cyanide in tuberculosis.—Compt. rend. soc. biol. 1920, v. 83, p. 178–180.

Kuhn, A.: Long-continued administration of silicic acid to persons suffering with pulmonary tuberculosis is claimed to be beneficial.—Münch. med. Wchnschr. 1920, v. 67, p. 253–255.

DeWitt, Lydia M., et al.: A study of the influence of creosote, guaiacol, and related substances on the tubercle bacillus and on experimental tuberculosis.—J. Infec. Dis. 1920, v. 27, 115–135.

Corper, H. J., et al.: A report of studies on the inhibitory action of sodium cinnamate in tuberculosis.—Am. Rev. Tuberculosis. 1920, v. 4, p. 464–473.

Walker, Ernest L., and Sweeney, Marion A.: The chemotherapeutics of the chaulmoogric acid series and other fatty acids in leprosy and tuberculosis. I. Bactericidal action, active principle, and specificity.—J. Infec. Dis. 1920, v. 26, 238–264.

Biesenthal, Max: Sodium gynocardate administered intravenously in sodium citrate solution once a week had no beneficial effect on the cases of pulmonary tuberculosis treated, as revealed by the physical findings and sputum.—Am. Rev. Tuberculosis, 1920, v. 4, p. 84–86

Lindenburg, A., and Pestana, B. R.: Chemotherapeutic studies with acid-resisting bacteria. The nonsaturated acids in chaulmoogra and other oils inhibit the growth of acid-resisting bacteria and check the proliferation of the leprosy and tubercle bacilli. Chaulmoogra and cod liver oils act as direct chemotherapeutic agents rather than as stimulants for phagocytosis or as tonics.—Brazil-Medico, 1920, v. 34, p. 603, through J. Am. M. Assoc. 1920, v. 75, p. 1602.

Biesenthal, Max: From clinical experience in the treatment of 25 patients over a period of 4 months with injections of sodium morrhuate, it is concluded that the latter has no beneficial effect in the treatment of pulmonary tuberculosis.—Am. Rev. Tuberculosis, 1920, v. 4, p. 781–783.

Baensch, W.: The isobutyl ester of oleic acid which, according to Stoletzner, has antigenic properties toward tubercle bacillus wax, is found to shorten the period of treatment of surgical tuberculosis in children when used in conjunction with other accepted procedures.—Münch. med. Wchnschr. 1920, v. 67, p. 1009–1010.

McDonald, J. T., and Dean, A. L.: Results obtained in the treatment of leprosy with the ethyl esters of the fatty acids of chaulmoogra oil are reported.—Public Health Rep. 1920, v. 35, p. 1959–1974.

Voegtlin, Carl, and Smith, Homer W.: Quantitative studies in chemotherapy. I. The trypanocidal action of antimony compounds. II. The trypanocidal action of arsenic compounds. III. The oxidation of arsphenamine. IV. The relative therapeutic values of arsphenamine and neoarsphenamine of different manufacture.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 453–493; v. 16, p. 199–217, p. 449–461.

Farre, René: A continuation of a paper dealing with the organic compounds of antimony and their applications in therapy.—Pharm. Weekbl. 1920, v. 57, p. 11–19.

Manson-Bahr, Philip: A report of experiences with the intravenous use of the acetylaminophenyl salt of antimony in the treatment of human trypanosomiasis and kala-azar.—Lancet (The), London, 1920, v. 2, p. 178–180.

Christopherson, J. B.: A report of experiments to determine the resistance of bilharzia and some other protozoal organisms to the action of antimony tartrate. Experiments *in vitro* show that the action is direct and that the miracidium is killed inside the shell.—Brit. M. J. 1920, v. 2, p. 854–855.

Cawston, F. G.: A report on the successful treatment of bilharziasis in South Africa, using intravenous injections of tartar emetic.—Lancet (The), London, 1920, v. 198, p. 865–867.

Rogers, Sir L.: Observations on the intravenous use of antimony in filariasis. Intravenous injections of soluble antimony salts are found to have a definite effect in reducing or causing the disappearance of the filarial embryos from the peripheral blood.—Brit. M. J. 1920, v. 1, p. 596–598.

Cawston, F. G.: Intramuscular injections of colloidal antimony are stated to have a decided effect on the changes produced in a patient where *B. lepræ* are at all active.—Brit. M. J. 1920, v. 2, p. 76–77.

Cawston, F. G.: A further report of beneficial effects of injections of colloidal antimony in the treatment of leprosy.—Brit. M. J. 1920, v. 2, p. 855–856.

Macfie, J. W. S.: Results obtained in the intravenous injection of tartar emetic in guinea-worm infection are reported.—Lancet (The), London, 1920, v. 198, p. 654–655.

Dalimier, R.: A report on the use of the iodide of dimethylarsenate of mercury and vanadium in the treatment of syphilis.—

Bull. soc. med. Paris, 1920, v. 8, p. 199, through Bull. sc. pharmacol. 1920, v. 27, p. 559.

Lewengood, J.: Notes on the treatment of syphilis with a new mercurial preparation, a combination of mercury with mineral and vegetable matter in the form of a spongy tablet, administered by inhalation of the smoke and vapor of the burning, smouldering tablet.—New York M. J. 1920, v. 111, p. 331–332.

Pearce, Louise, and Brown, Wade H.: Doses of 0.225 gram of the β-methylureide of n-phenylglycine-p-arsenic acid administered intraperitoneally in mice were uniformly curative for infections with *Trypanosoma brucei.*—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 242–243.

Spittle, R. L.: A note on the intravenous administration of mercuric iodide in the treatment of syphilis.—Lancet (The), London, 1920, v. 198, p. 378–379.

Carnot, P., and Guillaume, A.: A report of clinical experiments with mesothorium bromide in an isotonic solution containing one-thousandth of a milligram of the mesothorium salt per cubic centimeter of fluid. Intravenous injections caused improvement in several cases of inoperable cancer.—Paris Médical, 1919, No. 1, through New York M. J. 1920, v. 111, p. 121.

Heyl, George: A review dealing with the synthetic dyestuffs employed in chemotherapy.—Urological and Cutaneous Rev. 1920, v. 24, p. 320–325, through Chem. Abstr. 1921, v. 15, p. 119.

Krause, M.: A report on the trypanocidal action of methylated fuchsin derivatives and combined safran derivatives.—Ztschr. physikal. u. diät. Therap. 1919, v. 23, p. 231, through Pharm. Zentralh. 1920, v. 61, p. 651.

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Gane, E. H.: It is suggested that dichloramine be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Tarbouriech, P. J.: Notes on Dakin's chloramines and their pharmaceutical forms.—Bull. sc. pharmacol. 1920, v. 27, p. 269–277.

Tilley, F. W.: A report of experiments to determine the germicidal value of some of the chlorine disinfectants.—J. Agric. Res. 1920, v. 20, p. 85–110.

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Bebie, Jules: Analytical data relative to the stability of chloramine antiseptics are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 974–979.

Macfarlan, D.: A report of studies to determine the germicidal value of potassium mercuric iodide. Because of its great solubility, its freedom from irritant action, its comparatively low toxicity in solutions, and efficacy for germicidal purposes, this double salt is thought to be the most desirable of the inorganic germicides.—Am. J. Med. Sci. 1920, v. 159, p. 586–592.

McKenna, W. F., and Fisher, H. A.: An experimental study of the use of the double iodide of mercury and potassium for disinfecting the skin. Better results were obtained with an acetone solution than with an alcoholic solution.—Presse médicale, 1920, v. 28, p. 652.

Hamilton, Herbert C.: Data relative to the germicidal value of mercuric iodide alone, and associated with soap are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 497–501.

Hirschfelder, A. D., et al.: Mercury saligenin is found to have the same antiseptic power as mercuric chloride and to be much less irritant to mucous membranes. An acetate of this compound and the sodium salt have the same antiseptic strength.—Proc. Soc. Exper. Biol. & Med. 1920, v. 18, p. 77–79.

Fourneau, E., and Donard, E.: The use of iodine monochloride as an antiseptic in medicine and surgery is strongly advocated. A brief discussion is given of the various methods for preparing iodine monochloride and for determining its strength in solution.—Bull. sc. pharmacol. 1920, v. 27, p. 561–566.

Lancaster, Walter B.: A review of the literature on argyrol, with a report of studies on its use in therapy.—Boston M. & S. J. 1920, v. 183, p. 565–568.

Browning, C. H., et al.: An investigation of the antiseptic properties of compounds of the acridine and phenazine groups.—J. Path. & Bact. 1920, v. 23, p. 124–125.

Mueller, John H.: Results obtained in a study of the comparative toxicity of triphenyl methane and flavine dyes for tissues and bacteria are reported.—J. Path. & Bact. 1919, v. 22, p. 308.

Feiler, M.: Experimental wound disinfection with trypaflavine. The latter is found to be suitable for wound disinfection in guinea pigs infected with diphtheria bacilli.—Ztschr. Immun. u. exper. Therap. 1920, v. 30, p. 95–104.

Werner, S.: Acid, or neutral trypaflavine, is recommended as an early remedy in the treatment of crust-forming eczemas, especially in the pyodermas of children.—Münch. med. Wchnschr. 1920, v. 67, p. 637.

Churchman, J. W.: A study of the action of gentian violet with a view to its application, like other aniline dyes, in the treatment of wounds.—J. Am. M. Assoc. 1920, v. 74, p. 145.

Churchman, John W.: A report on the use of gentian violet in the treatment of purulent arthritis, with a discussion of allied problems.—J. Am. M. Assoc. 1920, v. 75, p. 583.

Kolmer, J. A., et al.: An experimental study of the effect of brilliant green on the diphtheria bacillus.—J. Infec. Dis. 1920, v. 26, p. 179–184.

Leschke, Erich: Argochrome (a silver compound of methylene blue) and argoflavin (a silver compound of trypaflavine) are stated to be decided improvements over colloidal silver as disinfecting agents in septic infections.—Berl. klin. Wchnschr. 1920, v. 57, p. 79–81.

Moll, Theod.: A report of researches to determine the effect of chemical disinfectants on tetanus spores. Data are given showing the effects for 9 different classes of disinfectants.—Centralb. f. Bakteriol. (Orig.) 1920, v. 84, p. 416–434.

4. ANALYTICAL DATA.

Fawsitt, Charles E., and Fischer, Christian H.: A table of 55 pure liquids is given. They are arranged in such order as to show their mutual miscibility, e. g., if No. 3 in the table is miscible in all proportions with No. 10, then all the liquids between these numbers are miscible in all proportions.—Proc. Roy. Soc. N. S. Wales, 1920, v. 53, p. 162–165.

Jones, A. J.: Analytical data relative to the assay of mercuric potassium iodide tablets are presented. The methods employed for the assay of mercury and iodine are described in detail.—Chem. & Drug. 1920, v. 92, No. 16, p. 69–70.

Harrisson, Joseph W. E., and Ehmann, K. F.: Data showing the degree of accuracy of dispensing tablets are presented. Tablets of strychnine sulphate and mercuric chloride were analyzed and taken as examples. The general run of samples examined contained very near the stated weight of active ingredient, although one lot was deficient to the extent of 15.5 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 518–519.

Gortner, Ross A.: Data showing the gold numbers of protalbinic and lysalbinic acids are presented.—J. Am. Chem. Soc. 1920, v. 42, p. 595–597.

1. ADULTERATONS.

Funk, E.: The impurities found in the examination of a number of inorganic chemicals are enumerated.—Zentralbl. f. Pharm. 1919, v. 15, p. 91, through Pharm. Zentralh. 1920, v. 61, p. 565.

Loud, T. R. L.: Report of the committee on the prevention of adulteration of the National Wholesale Druggists' Association. The committee recommends that its existence be discontinued as the willful adulteration of drugs and chemicals appears to be a condition of the past.—Proc. N. W. D. A. 1920, p. 356–366.

Dulière, Walter: Analytical data are given showing that pyramidon is frequently adulterated with magnesium silicate and wheat or rice starch.—J. pharm. Belg. 1920, v. 2, p. 873–876.

Kobbe: A note calls attention to the adulteration of amidophenazon with antipyrine.—Apoth.-Ztg. 1920, v. 35, p. 321.

Schuursma, M. J. M.: Analytical data obtained in the examination of an adulterated sample of digalene are given.—Pharm. Weekblad, 1920, v. 57, p. 1086–1087.

Zimmermann, W.: A report of results obtained in the examination of a number of chemicals and pharmaceutical preparations. These were found to be adulterated in many cases.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 44–46.

2. REAGENTS AND TEST SOLUTIONS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that in the next Pharmacopœia test solutions be prepared on the normality basis. The advantages of this system are very obvious. As a matter of fact this is not an innovation. Several of the test solutions now official—silver nitrate T. S., potassium permanganate T. S., sulphocyanate, and sodium thiosulphate, are made up on a normality basis.—Am. J. Pharm. 1920, v. 92, p. 553.

Thompson, Harry L.: It is suggested that normal and double normal volumetric solutions be deleted from the U. S. P. as half normal solutions serve a greater number of purposes and can be used equally as well. The list of N/10 solutions should include N/10 copper sulphate in place of Fehling's solution and N/10 barium chloride. N/100 and N/200 solutions should be deleted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1170.

Black, C. L.: The first paragraph on page 552, U. S. P., VIII, having been deleted, the statement beginning "when used" at the bottom of page 562 of the Ninth Edition, is hardly intelligible, since it refers to the solution mentioned in the deleted paragraph.—J. Am. Pharm. Assoc. 1920, v. 9, p. 420.

Thompson, Harry L.: The statement in the U. S. P. regarding the strength of normal volumetric solutions should read "1.008 grams of hydrogen" instead of "1 gram of hydrogen", because the atomic weights given are based on 16 as the atomic weight of oxygen.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1169.

Éwe, Geo. E.: The following change in the method of preparation of tenth normal iodine volumetric solution is suggested: Instead of dissolving 12.692 grams of purified iodine in a solution of 18 grams of potassium iodide in 300 cubic centimeters of distilled water, use only about 40 cubic centimeters of water. The U. S. P. method requires from 2 to 3 hours, while this method requires only about 10 minutes.—J. Am. Pharm. Assoc. 1920, v. 9, p. 419.

Thompson, Harry L.: There should be included in the introductory paragraphs on volumetric solutions directions for calibrating balances, weights, measures, and volumetric apparatus. Such paragraphs would make clear many discrepancies and errors now existing in the processes of the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1169.

Fleissig, P.: Tables are presented showing the uses to which the volumetric solutions of the Ph. Helv. IV are put and also the preparations in the analysis of which the solutions are used.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 263–273.

Snyder, J. P.: The subject of volumetric solutions should be given careful consideration by the U. S. P. revision committee and the directions for making these solutions so stated that no doubt will arise in the mind of the operator regarding the method of procedure.—Proc. New York Pharm. Assoc. 1920, p. 207.

Lyons, A. B.: The present U. S. P. assay of acetic anhydride does not detect acetic acid as an impurity in the anhydride.—J. Am. Pharm. Assoc. 1920, v. 9, p. 419.

Collins, W. D.: A note urges the use of metric units in purchasing reagents. A list of reagents is given with suggested unit weights.—J. Ind. & Eng. Chem. 1920, v. 12, p. 1206.

Collins, W. D.: Short descriptions are given of some American-made chemical reagents.—J. Ind. & Eng. Chem. 1920, v. 12, p. 800–801.

LeMotte, Frank L.: A discussion of the merits of various substances suggested as basic standards for alkalimetric solutions followed by a description of the properties and use of potassium acid phthalate in standardizing these solutions.—Cotton Oil Press, 1920, v. 4, No. 7, p. 52–53.

Anon.: A resumé of the work done at the Bureau of Standards and elsewhere which has led to the selection of sodium oxalate as a primary standard in volumetric analysis.—Bur. Stand. Circ. 1920, v. 40, p. 1–13.

Dodge, F. D.: A note on the use of potassium hydrogen phthalate as a standard in alkalinity calls attention to the fact that the triphthalate is deposited when a saturated solution of the acid is chilled. The formation of this salt can be avoided by crystallization at temperatures above 20°.—J. Am. Chem. Soc. 1920, v. 42, p. 1655–1656.

Low, A. H.: A note on the stabilization of thiosulphate solution for the copper assay. The addition of 5 grams of sodium hydroxide per liter to neutralize the effect of any carbon dioxide which may be dissolved is recommended. The solution should be kept in an amber glass bottle to avoid the action of actinic light.—Chem.-Analyst, 1920, No. 30, p. 18–19.

Bollinger, C. H., and Terry, R. W.: Notes on the standardization of volumetric solutions with cochineal and methyl-red as indicators.—Midl. Drug. 1920, v. 54, p. 377.

Bell, W. H.: An account of the use of p-nitroaniline in the standardization of solutions of sodium nitrite.—Chem. Met. Eng. 1920, v. 22, p. 1173, through Chem. Abstr. 1920, v. 14, p. 2593.

Schimmel, Joseph: Notes on the permanence of potassium permanganate solution.—Chem.-Analyst, 1920, No. 31, p. 16.

Kasanof, D. R.: Notes on the preparation of cupferron.—J. Ind. & Eng. Chem. 1920, v. 12, p. 799.

Kuhnt, O.: Magnesium mixture for the precipitation of phosphoric acid, if prepared without the addition of ammonia, may be kept indefinitely in glass bottles without the glass being attacked.

The requisite quantity of ammonia is added after the phosphate solution has been treated with a slight excess of the reagent.—Chem.-Ztg. 1920, v. 44, p. 586.

Krauskopf, Francis C., and Purdy, L. H.: A description of a convenient method for the preparation of a hydrochloric acid solution of cuprous chloride for use in gas analysis.—J. Ind. & Eng. Chem. 1920, v. 12, p. 158–161.

Marvel, et al.: Organic chemical reagents. V. The preparation of alkyl and alkylene bromides. VI. Reagents from normal butyl alcohol.—J. Am. Chem. Soc. 1920, v. 42, p. 299–320.

Geret, L.: A note calls attention to impurities in ether which interfere with its use in iodometric titrations. Ether for use in connection with subsequent iodine determinations should be shaken with alkaline sodium thiosulphate solution, freed from water by $CaCl_2$, distilled and kept over sodium.—Mitt. Lebensm. Hyg. 1920, v. 11, p. 67–68.

Osaka, Yukichi, and Ando, Kinji: The preparation of potassium binoxalate free from water of crystallization suitable for use as a standard in alkalimetry is described.—J. Tokyo Chem. Soc. 1920, v. 41, p. 945–951.

Haun, Fr.: Notes on the preparation and use of diphenylamine-sulphuric acid reagent. The reagent gives a blue color with nitrates, nitrites and other oxidizing agents such as hydrogen peroxide, permanganic acid, ferric salts, potassium dichromate, etc.—Ztschr. Unters. Nahr.—u. Genussm. 1920, v. 39, p. 355.

Feigl, F.: Notes on the application of benzidine and other diphenyl derivatives to qualitative reactions.—Chem.-Ztg. 1920, v. 44, p. 689–690.

Dixon, Henry W.: A method for preparing phloroglucinol reagent for the Kreis test for rancidity of fats is described.—J. Ind. & Eng. Chem. 1920, v. 12, p. 174.

Denigès G.: A reagent for the microchemical identification of the iodate ion is prepared by dissolving 1 gram of thallium acetate in 20 cubic centimeters of water.—Bull. soc. pharm. Bordeaux. 1920, v. 58, p. 211–214; Compt. rend. acad. sc. 1920, v. 171, p. 177–179.

Denigès, G.: Notes on the use of iodic acid as a microchemical reagent for soluble and insoluble compounds of calcium, strontium, and barium.—Compt. rend. acad. sc. 1920, v. 170, p. 996–998.

Débourdeaux, Léon: Directions are given for modifying the strychnine-molybdic acid reagent of Denigès so that the presence of barium will not interfere in testing for phosphates.—Bull. sc. pharmacol. 1920, v. 27, p. 70–72.

Heiduschka, A., and Wolf, L.: A contribution to our knowledge of the behavior of silico- and phosphotungstic acids toward alkaloids.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 213–218, 229–233.

Utz: A note on the use of zinc chloride as a reagent for testing the purity of balsams. An abstract.—Boll. chim.-farm. 1920, v. 59, p. 78.

Willard, H. H., and Cake, W. E.: An investigation to determine the value of perchloric acid as a dehydrating agent in the determination of silica. Dehydrated perchloric acid boils at 203° C. and is found to be a powerful dehydrating agent at this temperature.—J. Am. Chem. Soc. 1920, v. 42, p. 2208–2212.

Fleury, P.: A study of the catalytic decomposition of sodium hypobromite solution by copper sulphate for the purpose of determining the effect of the presence of copper which is frequently an impurity present in caustic soda.—J. pharm. et chim. 1920, v. 22, p. 449–462; Compt. rend. acad. sc. 1920, v. 171, p. 957–960.

Bolin, Iwan, and Linder, Gunner: A study of the effect of light on Fehling's solution.—Ztsch. physik. Chem. 1919, v. 93, p. 721–736, through Chem. Zentralbl. 1920, v. 91, part 1, p. 365–366.

Walmsley, J. R.: Attention is directed to the value of saponified cresol of the lysol type of antiseptic as a clearing agent, particularly in the examination of powdered drugs. It is stated to be superior in many ways to chloral hydrate, which is commonly used.—Pharm. J. 1920, v. 105, p. 452.

Kofler, Ludwig: A mixture of sodium salicylate 10 g., distilled water 15 g., and cresol (liquified) 5 g. is recommended as a satisfactory reagent for clarifying plant tissues for microscopical examination.—Ztschr. wiss. Mikros. 1920, v. 37, p. 213–214.

Partridge, William: A review of the second English edition of a volume by Dr. C. Krauch, entitled *Chemical Reagents: Their Uses, Methods of Testing for Purity, and Commercial Varieties.*—Analyst (The), London, 1920, v. 45, p. 35–36.

Anon.: A book review calls attention to a volume by B. L. Murray, entitled *Standards and Tests for Chemical Reagents.*—Chem. Abstr. 1920, v. 14, p. 1645.

Anon.: A book review of a bulletin entitled *Organic Chemical Reagents* published by the University of Illinois. The bulletin contains methods for the preparation of 32 organic chemicals in lots of one-half to 5 pounds.—Drug & Chem. Markets, 1920, v. 6, No. 3, p. 111.

3. INDICATORS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that methyl red be specifically directed for use in the various assay processes instead of cochineal. Methyl red gives clear end-points in all cases, whereas the end-point with cochineal, when assaying aconite, ipecac, nux vomica, or opium, is rather obscure and difficult to determine. Cochineal could be permitted for alternate use as methyl red now is.—Am. J. Pharm. 1920, v. 92, p. 651.

Eberhard, A.: Notes on the use of methyl red in the determination of alkaloids in cinchona, belladonna, nux vomica, pomegranate, and the galenical preparations made therefrom.—Apoth.-Ztg. 1920, v. 35, p. 318-319.

Herzog, J.: A report of some experiences with the use of methyl red in the titration of alkaloids. It has the advantage over some of the other indicators in that it is not necessary to work with alkaloidal solutions of a high degree of purity.—Apoth.-Ztg. 1920, v. 35, p. 216.

Lubs, H. A.: A discussion of the use of indicators in certain chemical processes employed in the industries.—J. Ind. & Eng. Chem. 1920, v 12, p. 273–274.

Huttig, Gustav F.: Theory of acidimetric indicators. A discussion of Wegscheider's paper.—Ztschr. physik. Chem. 1920, v. 95, p. 280–284.

Babe, E., and Cabrera, T.: A solution of the dried blue blossoms of the butterfly pea (*Clitoria ternatea* L.) in 90 per cent alcohol is stated to be a satisfactory indicator for use in determining the alkalinity of milk. The color is bluish-red in acid solution, marine blue in neutral solution, and sky blue in alkaline solution.—Revista de agr., commercio y trabajo, Havana, Nov. 1919, p. 537–539, through Chem. Abstr. 1920, v. 14, p. 3203.

Houseman, Percy A., and Swift, Clement K.: A description of a commercial process for the preparation of hematoxylin. Illustrated.—J. Ind. & Eng. Chem. 1920, v. 12, p. 173–174.

Fresenius, W., and Grunhut, L.: A description of a procedure for the preparation of red litmus paper.—Ztschr. anal. Chem. 1920, v. 59, p. 233-234.

Linde, O.: In commenting on some of the titration processes of the Ph. Germ., the use of cochineal or litmus as indicator in the titration of alcohol-containing solutions in place of phenolphthalein, as now directed, is recommended.—Apoth.-Ztg. 1920, v. 35, p. 440.

Wells, Roger C.: The salt error of cresol red, an indicator used in the determination of the hydrogen-ion concentration of sea water, has been studied so that in making comparisons the proper allowance can be made for the amounts of salt in the standard and the unknown. A table is given of corrections for p_H for varying salinities in the unknown.—J. Am. Chem. Soc. 1920, v. 42, p. 2160-2167.

Ward, T. J.: Litmus paper containing resinous matter can be made suitable for use by treatment with alcohol and dilute acid in a Soxhlet extractor.—Analyst (The) London, 1920, v. 45, p. 412.

Ostwald, Wo.: A report of colloid chemical studies with Congo rubin. The report also deals with a theory of indicators and color changes in organic materials.—Kolloidchem. Beihefte. 1919, v. 10, p. 179–282, through Chem. Abstr. 1920, v. 14, p. 1774.

Luers, Heinrich: A study of the color change of Congo red under the influence of acids, bases, and neutral salt.—Kolloid-Ztschr. 1920, v. 26, p. 15–20; v. 21, p. 123–136.

Haller, R.: A discussion of the color changes of Congo red based on investigation. The literature is reviewed.—Kolloid-Ztschr. 1920, v. 27, p. 188–195.

Tizard, H. T., and Whiston, J. R. H.: An investigation of the effect of temperature on the color changes of methyl orange in titration has shown that this factor is negligible.—J. Chem. Soc. Lond. 1920, v. 117–118, p. 150–156.

Maori, V.: The author describes the behavior of methyl orange in the presence of various compounds which affect its action as an indicator.—Boll. chim.-farm. 1920, v. 59, p. 193–196.

Moir, James: A note on a polychromatic indicator, 3:3 dihydroxybenzarine-2-sulphonic acid, prepared by condensing catechol with o-sulpho-benzoic acid. Its range of color in acid and alkaline solutions is given.—J. S. African Assoc. Anal. Chem. 1920, v. 3, p. 6–8, through J. Chem. Soc. Lond. 1920, v. 118, part II, p. 628.

Mestrezat, M.: Notes on the use of some indicators. The behavior of Poirrier blue C. 4. B., phenolphthalein, sensitized litmus, lacmoid, lacmoid-malachite green, methyl orange, and sodium alizarinsulphonate toward acids, bases, and carbonates is discussed.—J. pharm. et chim. 1920, v. 21, p. 185–192.

Bruhns, G.: Comparative titrations with N/100 sodium hydroxide and hydrochloric acid solutions, using phenolphthalein and methyl orange as indicators, showed that with the former indicator less acid was required to neutralize a given quantity of the alkali than when methyl orange was employed, the difference being due to absorption of carbon dioxide from the air during titration.—Ztschr. Zuckerind. Czechoslav. 1920, v. 44, p. 331–335, through J. Chem. Soc. Lond. 1920, v. 118, part II, p. 628.

Matignon, C., and Gire, G.: A systematic study of the comparative action of nitric and nitrous acids on the different indicators.—Bull. soc. chim. France, 1920, v. 27, p. 362–366.

Morishima, Kan-ichiro: Phenol red-China blue is recommended as an indicator in fermentation tests of bacterial cultures.—J. Infec. Dis. 1920, v. 26, p. 43–44.

4. PHYSICAL CONSTANTS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that official methods for determining physical constants be given in the U. S. P., X, and the methods described in the U. S. P.,

IX. should be extended and improved.—Am. J. Pharm. 1920, v. 92, p. 549.

Falckenberg, G.: A study of the effect of pressure on the dielectric constants of water, ethyl alcohol, methyl alcohol, and acetone.—Ann. Physik. 1920, v. 61, p. 145–166.

Herschel, Winslow H.: An account of the method of using the Macmichael torsional viscosimeter, including a description of the apparatus and a discussion of data obtained by its use.—J. Ind. & Eng. Chem. 1920, v. 12, p. 282–286.

Gibson, William H., and Jacobs, Laura M.: A simple apparatus for determining the viscosity of liquids by means of a falling sphere is described.—J. Chem. Soc. 1920, v. 117, p. 473–478.

"Latex": A method for determining the solidifying point of substances is described. Illustrated.—Chem. Trade J. 1920, v. 66, p. 627.

Wilhelm, R. M., and Finkelstein, J. L.: A description of a standardized method for the determination of solidification points, especially of naphthalene and paraffin.—Sci. Papers Bur. Stand. 1920, No. 340, p. 158–197.

Kiplinger, C. C.: An illustrated description of a surface tensimeter for small quantities of liquids.—J. Am. Chem. Soc. 1920, v. 42, p. 472–476.

Langhans: A new physical constant, the angle of slope, is defined as the angle which the sloping side of a pile of discrete material forms with the horizontal. Data obtained for this constant on 90 different salts, metallic powders and organic compounds are presented.—Kolloid-Ztschr. 1920, v. 27, p. 101–123.

SPECIFIC GRAVITY.

Block, Walter: An experimental study of the accuracy obtainable in the determination of the specific gravity of solutions by means of the pycnometer.—Ztschr. angew. Chem. 1920, v. 33, part I, p. 198–200.

Holker, J.: Data obtained in the determination of specific gravity by means of the viscometer are given.—J. Path. & Bact. 1920, v. 23, p. 185–187.

Taber, Geo. H.: Some notes on the Baumé hydrometer.—J. Ind. & Eng. Chem. 1920, v. 12, p. 593–595.

Thiel, A., and Stoll, L.: A solution of lead perchlorate is recommended as a substitute for mercuric potassium iodide solution in the determination of the specific gravity of heavy solids by the suspension method.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 2003.

Thomsen, Th. Sv.: A table is given showing the specific gravities at intervals of 2° between 8 and 22° C. of various acids, oils, balsams, and pharmacopœial preparations.—J. Ind. & Eng. Chem. 1920, v. 12, p. 322–326.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the statements regarding solubilities in the U. S. P., IX, be extended to cover all of the more commonly used solvents.—Am. J. Pharm. 1920, v. 92, p. 549.

Éwe, Geo. E.: The solubility of unaltered U. S. P. ammonium carbonate in U. S. P. alcohol at 25° C. is found to be 2.12 grams per 100 cubic centimeters.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 251.

Éwe, Geo. E.: The solubility of ammonium salicylate in ether is found to be about 1 in 150, weight to volume.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 251.

Wadsworth, R. V.: Data are given showing the solubility of theobromine in eleven different organic solvents at 15.5° C. and at the boiling point of the solution.—Analyst (The), London, 1920, v. 45, p. 133.

Utz, F.: The amounts of phenolphthalein in grams contained in 100 cubic centimeters of a warm saturated solution of the following organic solvents are given: ethyl alcohol, methyl alcohol, acetone, chloroform, carbon disulphide, ether, petroleum ether, benzene, carbon tetrachloride, xylene, toluene, nitrobenzene, ethyl acetate, and water.—Südd. Apoth.-Ztg. 1920, v. 60, p. 430–431, 442–444.

Schulze, Alfred: An experimental study of the solubility of radium emanation in organic liquids.—Ztschr. physik. Chem. 1920, v. 95, p. 257–279.

Wheeler, A. S.: Data are given showing the solubility of a considerable number of organic compounds in p-cymene.—J. Am. Chem. Soc. 1920, v. 42, p. 1842–1846.

Oliberi-Mandala, E.: The solubility of the halogens in their corresponding acids and salts. II. A report on the solubilities of chlorine in solutions of sodium chloride and hydrochloric acid, and of bromine in sodium chloride, hydrochloric acid and hydrobromic acid.—Gaz. chim. ital. 1920, v. 50, p. 89–98.

Fuseya, G.: Data showing the solubility of mercuric oxide in sodium hydroxide solutions are presented and discussed.—J. Am. Chem. Soc. 1920, v. 42, p. 368–371.

Joseph, Alfred F.: The solubility of potassium bromide in bromine water. The solubility of potassium bromide in water at 32.4° is 725.6 grams per 1,000 grams of water. The increased solubility of potassium bromide in the presence of bromine equals one-third of the bromine concentration between 0 and 382.1 grams of bromine per 1,000 grams of water.—J. Chem. Soc. Lond. 1920, v. 117, p. 377–381.

Buchanan, G. H., and Winner, G. B.: Data relative to the solubility of mono and diammonium phosphate are presented.—J. Ind. & Eng. Chem. 1920, v. 12, p. 448–451.

Boutaric, A.: Data showing the solubility of acrolein in water, and of water in acrolein, at various temperatures are given.—J. chim. phys. 1920, v. 18, p. 126–132.

Bisson, C. S., and Christie, A. W.: A note on the solubility of benzidine sulphate in water.—J. Ind. & Eng. Chem. 1920, v. 12, p. 485–486.

Billiter, Jean: An investigation of the influence of chloride upon the solubility of chlorate and the effect of temperature.—Monatsh. Chem. 1920, v. 41, p. 287–295.

Gillis, J.: Data showing the solubility of milk sugar in water at various temperatures up to 100° are presented and discussed.—Rec. trav. chim. 1920, v. 39, p. 677–678.

Stroup, F. P.: A review of the second edition of a volume by Atherton Seidell entitled *Solubilities of Inorganic and Organic Compounds* states that the book will be of great value to anyone whose work has to do with the solubility of substances in various solvents and under varying conditions.—Am. J. Pharm. 1920, v. 92, p. 62–64.

MELTING POINT DETERMINATIONS.

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White, Walter P.: The estimation of impurities by means of melting point curve is discussed. Experimental data are reported.—J. phys. Chem. 1920, v. 24, p. 393–416.

Meissner, F.: A study of the effect of crystal division on melting point.—Ztschr. anorg. Chem. 1920, v. 16, p. 169–186.

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Arreguine, V.: A compact and simple apparatus is described by means of which it is possible to determine the boiling-point of liquids boiling below 210° C. Only about 3 milligrams of the substance is necessary for the determination.—Soc. Chim. Argent., through J. Soc. Chem. Ind. 1920, v. 39, p. 584A.

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Stoermer, R. et al.: Data relative to the boiling points of stereoisomeric and cinnamic esters are given, also the boiling points of the esters of some stereoisomeric unsaturated acids.—Ber. deutsch. chem. Gesellsch. 1920, v. 53B, p. 1283–1299.

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Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the U. S. P. retain in the next revision 25° C. as the standard temperature, except in the case of alcohol.—Am. J. Pharm. 1920, v. 92, p. 549.

Anon.: A table is given showing the thermometric equivalents of the Centigrade, Fahrenheit and Reaumur scales from —15° C. to +250° C.—Perf. & Ess. Oil Rec. Year-Book, 1920, p. 26.

Sauveur, Albert: Temperature conversion tables are given by which the degree Fahrenheit corresponding to a given degree Centigrade and *vice versa* may be read directly.—Chem. Met. Eng. 1920, v. 23, p. 1075.

Siebert and Karl: Standardization of mercury thermometers. Greater uniformity in diameter and length of thermometers is recommended, and desired dimensions are given.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 216.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that in the next U. S. P. a more readily obtainable type of thermometer be adopted and their number reduced to a more practical basis.—Am. J. Pharm. 1920, v. 92, p. 554.

Thompson, Harry L.: The tables of thermometric equivalents in the U. S. P. are of no real value. Boiling-point tables should be given, together with physical factors and corrections for altitude.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1171.

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Anon.: Diagrams and description of several refractometers are given.—Nature, London, 1919, v. 103, p. 145–146.

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Schoorl, N.: The author discusses the limitations of the use of the specific refraction $\frac{n-1}{d}$, values for the identification of an unknown organic compound.—Rec. trav. chim. 1920, v. 39, p. 594–599.

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5. CHEMICAL CONSTANTS.

Egerton, Alfred C.: A note on the determination of chemical constants. Methods of making calculations and the conditions necessary for obtaining accurate results are discussed.—Phil. Mag. 1920, v. 39, p. 1–20.

Olszewski, W.: A short review of methods for the determination of the iodine number of fats and oils. A bibliography is appended.—Pharm. Zentralh. 1920, v. 61, p. 641–643.

Devient, W.: A contribution to our knowledge of the methods for the determination of the iodine number of fats.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 361–366.

Sundberg, Thure, and Lundborg, Martin: An examination and comparison of the various methods for determining the iodine number of fats. The Hanus method is superior to that of Hübl because of the greater stability of the Hanus solution.—Ztschr. Unters. Nahr.—u. Genussm. 1920, v. 38, p. 87–95.

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Salvaterra, H.: A description of a method for determining the saponification value of dark colored resins.—Chem.-Ztg. 1919, v. 43, p. 765.

Pardee, A. M., et al.: Normal butyl alcohol is found to be superior to ethyl alcohol as a medium for quantitative saponification, as by its use satisfactory results are more readily obtained and special precautions are less often required.—J. Ind. & Eng. Chem. 1920, v. 12, p. 481–482.

Kirglan, V. H.: A study of the effect of pressure on the Polenske and Reichert-Meissl values. The errors introduced by ordinary variations in the atmospheric pressure are shown to be quite small.—Analyst (The), London, 1920, v. 45, p. 293–297.

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6. APPARATUS.

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Clemens, C. A.: A light simple compact bulb condenser designed to fit on lipless beakers is described. It is suitable as a reflux condenser for use in preparing organic compounds and for the determination of crude fiber.—J. Ind. & Eng. Chem. 1920, v. 12, p. 288–289.

Clark, C. M.: A new form of connecting bulb which is said to be effective in rapid distillation is described and illustrated.—J. Ind. & Eng. Chem. 1920, v. 12, p. 366.

Waldbott, Sigmund: A simple device for testing for the presence of alcohol consists of a metal flask to which is attached a bead condenser. If 3 per cent or more of alcohol is present in the liquid to be tested the vapours escaping at the top of the condenser will ignite if a burning match or candle is applied.—J. Ind. & Eng. Chem. 1920, v. 12, p. 690.

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Sheppard, S. E.: A new instrument is described for rapid and accurate determinations of the turbidity of solutions of which only small amounts are available.—J. Ind. & Eng. Chem. 1920, v. 12, p. 167–169.

McKibben, C. W.: U. S. patent 1,296,988, 1919, describes an apparatus for separating the constituents of an emulsion, such as oil and water.—J. Soc. Chem. Ind. 1920, v. 39, p. 537A.

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Lockemann, Georg.: A description of a revolving incinerating stand with two flames.—Chem. Abstr. 1920, v. 14, p. 283.

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7. FILTERS.

Éwe, Geo. E.: The U. S. P. directs the use of Schleicher and Schull's filters on page 532. Some other make should be specified as Schleicher and Schull's filters are unobtainable. There are other makes that will answer the purpose.—J. Am. Pharm. Assoc., 1920, v. 9, p. 419.

Knaffl-Lenz, E.: A description of a rapid and simple method of making ultra-filters.—Kolloid-Ztschr., 1920, v. 27, p. 315.

Moser, L., and Kittl.: A note on the use of membrane filters in chemical analysis.—Chem.-Ztg., 1920, v. 44, p. 637–638.

Scheringa, K.: A report of experiments to determine the adsorptive properties of cèllulose (filter paper) and starch.—Pharm. Weekbl., 1920, v. 57, p. 1289–1294.

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Gawalowski, A.: A description of a method for the determination of the iron content of filter paper purified with hydrofluoric acid.—Apoth.-Ztg., 1920, v. 40, p. 158.

8. COLOR STANDARDS AND COLORS.

Medalia, Leon S.: The preparation of color standards for the colorimetric measurements of hydrogen-ion concentration from pH 1.2 to pH 9.8, is described.—J. Bact., 1920, v. 5, p. 441–468.

Wirth, Alfred: The practical significance of Ostwald's color system. Examples are given of how the color norms may be matched by blending the proper quantities of white, black, and "bright" colors.—Chem.-Ztg., 1920, v. 44, p. 737–738.

Gamble, W.: A description of the Bawtree colorimeter.—Phot. J., 1920, v. 60, p. 149–151, through J. Soc. Chem. Ind., 1920, v. 39, p. 430A.

9. ANALYTICAL METHODS AND RESULTS.

Kebler, L. F.: It is recommended that only such methods of analysis be included in the U. S. P. as give fairly concordant results in the hands of experienced workers. No methods should be considered for possible inclusion, which, in the try outs, vary more than 20 per cent in the hands of skilled operators.—J. Am. Pharm. Assoc., 1920, v. 9, p. 296.

Thompson, Harry L.: It is suggested that 20° C. be adopted as the standard in the new U. S. P. for volumetric work, since all accurately graded volumetric apparatus is calibrated at 20° C.—J. Am. Pharm. Assoc., 1920, v. 9, p. 1168–1169.

Snyder, J. P.: It is suggested that the U. S. P. revision committee would do well to enlarge upon the electrolytic methods of assaying and direct the use of these methods in the assay of more of the metallic salts.—Proc. New York Pharm. Assoc. 1920, p. 207.

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Howard, B. J.: A general report on microanalytical methods, with special reference to the lines of work which should be followed in developing quantitative methods.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 60–63.

Gartner, Erich: A procedure is described whereby microchemical analyses can be conducted in a one-piece apparatus.—Monatsh. Chem. 1920, v. 41, p. 477–497.

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Ludwig, Eugene: It is stated that microchemical tests with reagents are rendered more sensitive by saturating the system with the ions to be precipitated. This is illustrated with potassium pyroantimonate as a reagent for sodium, and with hydrochlorplatinic acid as reagent for potassium.—Bull. Soc. Chim. Romania, 1920, v. 2, p. 28–32, through Chem. Abstr. 1920, v. 14, p. 3614.

Strebinger, Robert: Estimation of ions by microanalytical methods. I. The estimation of Ag, Ni, As, Fe, Cr, and Cu, and the separation of Ag from Cu and Pb from Sn by Pregl's method is described.—Oesterr. Chem.-Ztg. v. 21, p. 71–73, through Chem. Abstr. 1920, v. 14, p. 703.

Thiel, A.: A discussion advocating the use of equivalent units in expressing the results of analyses.—Chem.-Ztg. 1920, v. 44, p. 81–82.

Mannich, C., and Wipperling, D.: A report of experiments on the use of the process of ultra filtration in toxicological analysis.—Ber. Deutsch. Pharm. Gesellsch. 1920, v. 30, p. 348–361.

Moser, L.: A discussion of the analytical chemistry of the present, including a review of the literature of recent years.—Oesterr. Chem.-Ztg. 1920, v. 23, p. 1–5, 10–13, 16–20.

Longinescu, G. G., and Teodorescu, G. P.: A note on the separation of the metals of the second group.—Bull. Sec. Sci. Acad. Roumaine, 1920, v. 6, p. 159–164.

DePauw, P.: A description of a modification of Petersen's method for the qualitative separation of the cations of the third and fourth groups.—Chem. Weekblad, 1920, v. 17, p. 191–192.

Macri, V.: A scheme is given in which the metals are detected approximately in the opposite order to that of the procedure commonly employed.—Boll. chim.-farm. 1920, v. 59, p. 385–389.

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Bucherer, Hans T.: A modification of Wildenstein's method for the volumetric determination of acids and bases which form insoluble or difficultly soluble salts is described.—Ztschr. anal. Chem. 1920, Weekblad, v. 59, p. 297–302.

Kolthoff, I. M.: Iodometric titrations. A study of the sensitiveness of the indicators used in iodometric titrations, of the reaction velocity, and of methods of standardization. Results of determinations are given.—Chem. Weekblad, 1920, v. 17, p. 82–85.

Kolthoff, I. M.: An investigation of methods for the iodometric determination of acids.—Pharm. Weekblad, 1920, v. 57, p. 53–68.

Kolthoff, I. M.: Studies are reported of iodometric titrations of hydrogen peroxide, iodides, bromides, chlorides, arsenic acid, sulphurous acid and its salts, hydrogen sulphide and sulphides, tin, iron, and acids.—Chem. Weekblad, 1920, v. 17, p. 197–200.

Smith, J. L. B.: Descriptions are given of volumetric methods for the determination of barium and of sulphate.—South African J. Science, 1919, v. 16, p. 174–176.

LeHer: Two procedures for the quantitative determination of alkali nitroprussiates are described.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 12–16.

Segnitz, Paul H.: Additional information is given to substantiate the well-known fact that a little manganese sulphate at the start is helpful in titrating oxalates, hydrogen peroxide, et cetera, by means of permanganate.—J. Ind. & Eng. Chem. 1920, v. 12, p. 1196–1197.

Treadwell, W. D., and Weiss, L: A general discussion of electrometric titrations, with descriptions of titrations of H_2S with $AgNO_3$, mercurous ions with sodium chloride or bromide, of cuprous ions with KCNS, zinc with ferrocyanide, iron with dichromate, and uranium and vanadium with permanganate.—Helvetica Chim. Acta. 1919, v. 2, p. 680–697.

Kolthoff, I. M.: A review of the application of potentiometric titrations. The use of hydrogen, silver, mercury, and copper electrodes are described, as well as the application of oxidation and reduction potentials.—Chem. Weekblad, 1920, v. 17, p. 659–664.

Kolthoff, I. M.: A study of the applicability of conductometric titrations in neutralization analyses.—Chem. Weekblad, 1920, v. 17, p. 694–701.

Kolthoff, I. M.: A report of studies on the application of electrometric titrations in neutralization analysis. I. The neutralization of acids and bases.—Ztschr. anorg. Chem. 1920, v. 111, p. 1–28.

Klopsteg, Paul E.: A description of a simple method for titrating electrometrically to a desired end point in acid-alkaline reactions.—Science, 1920, v. 52, No. 1331, p. 18–19.

Lundell, G. E., and Knowles, H. B.: Data relative to the use of cupferron in quantitative analysis are presented.—J. Ind. & Eng. Chem. 1920, v. 12, p. 344–350.

Badger, W. L.: Experimental studies on the determination of oxygen by the copper-ammonia-ammonium chloride reagent.—J. Ind. & Eng. Chem. 1920, v. 12, p. 161–164.

Scheringa, K.: A description of a method for the determination of the quinine content of quinine pills.—Pharm. Weekblad, 1920, v. 57, p. 422.

Brauer, K.: The use of membrane filters is stated to be of little value in hastening analytical filtrations. The opinions of other analysts, holding an opposite view, are discussed.—Chem.-Ztg. 1920, v. 44, p. 884.

Van Alstine, Ernest: The determination of hydrogen-ion concentration by the colorimetric method is described, also an apparatus for rapid and accurate work.—Soil Sci. 1920, v. 10, p. 467–479.

Kolthoff, I. M.: A review of the second edition of a volume by John B. Coppock entitled *Volumetric Analysis*.—Chem. Weekblad, 1920, v. 17, p. 682.

Anon.: A book review calls attention to the second edition of *Volumetric Analysis for Students of Pharmaceutical and General Chemistry* by Charles H. Hampshire.—Chem. & Drug. 1920, v. 92, p. 10.

Anon.: A review of Hall's English translation of the 5th German edition of Alexander Classen's work entitled *Quantitative Analysis by Electrolysis*.—Drug & Chem. Markets, 1920, v. 6, p. 204.

Anon.: A review of the second edition of the English translation of a work by Karl Dieterich entitled *The Analysis of Resins, Balsams, and Gum Resins.*—Perf. & Ess. Oil Rec. 1920, v. 11, p. 372.

G. M.: A book review of volume 4 of the third edition of a work by L. L. DeKoninck entitled *Chimie analytique qualitative et quantitative.*—Drug. Circ. 1920, v. 64, p. 212.

Prins, Ada.: A review of the third edition of a volume by Wilhelm Böttger entitled *Qualitative Analysis from the Standpoint of the Ionic Theory.*—Chem. Weekblad, 1920, v. 17, p. 681.

Schamelhout, A.: A review of a volume by G. Denigès entitled *Lessons in the Qualitative Analysis of the Metalloids and Their Principal Derivatives.*—J. pharm. Belg. 1920, v. 2, p. 165.

10. TESTS.

Lyons, A. B.: After the general physical properties of an article have been briefly stated in the U. S. P., the most distinctive identification test should be given. A second test may be added, but multiplication of such tests is superfluous. Tests for the common impurities should follow. These may well be condensed into a single paragraph. Tests for the limitation of such impurities as moisture, ash, etc., may form another paragraph. The quantitative assay should conclude the article as in the U. S. P., IX.—Drug. Circ. 1920, v. 64, p. 86.

Committee on U. S. P. Philadelphia Coll. Pharm.: The object of purity rubrics and assays is tó secure preparations and drugs of standard quality. If the same ends can be attained by the use of simpler tests, there is obviously no reason for employing difficult and laborious tests. This being granted, as a matter of course, several purity rubrics and assays could be advantageously omitted.—Am. J. Pharm. 1920, v. 92, p. 551.

Thompson, Harry L.: It is suggested that methods for the assay of the alkali and alkaline earth hydroxides, carbonates, and bicarbonates be placed in Part II of the U. S. P. under general tests and that tests for the inorganic and organic acids also be given here.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1170.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the general assays for alkali salts of organic acids and for halogen salts, having proved very satisfactory, be extended to other assays which are frequently used in the U. S. P., such as tests for acids, ferric salts, zinc salts, benzoates, and salicylates.

It is further suggested that wherever such assays are available and are not unduly laborious, the active principle of the substances be determined. In calcium chloride the calcium should be estimated and in sodium benzoate and salicylate, the respective acids determined.—Am. J. Pharm. 1920, v. 92, p. 552-553.

Committee on U. S. P. Philadelphia Coll. Pharm.: Quantitative or semiquantitative tests should be adopted for permissible impurities wherever such tests are available, when they are not difficult of execution, and can be made without the use of elaborate apparatus. For instance, instead of "slightly acid or slightly alkaline," a titrimetric limit for acidity or alkalinity should be given. Turbidimetric comparison tests can likewise be used for chlorides, sulphates, and similar impurities. These tests should preferably be described under a general heading in Part II, as the test for arsenic in the present edition. The advantage of this method is very obvious The tests can be described with more detail and greater clearness, and thus promote greater accuracy and uniformity.—Am. J. Pharm. 1920, v. 92, p. 552.

Arny, H. V.: A discussion of the meaning of the expression "faint turbidity" as applied to analytical control work. Data are given which show the limits of impurities which can be detected in 100,000 parts of chemical, e. g., Cl in $MgSO_4+7H_2O$; SO_4 in NaBr; P_2O_5 in $NaH_2PO_2+H_2O$, et cetera.—J. Am. Pharm. Assoc. 1920, v. 9, p. 971–973.

Bliss, A. R., jr.: The test under calcium bromide is too indefinite. For example, "not more than a slight turbidity is produced at once (chlorides)," completes the description and requirements of the U. S. P. test. What might be called "a slight turbidity" by one individual might be called a "decided" or "marked turbidity" by another. Specific limits should be set, as, for example, with the test for chlorides under calcium bromide, a limit of, say, 0.000,002 gram Cl (or whatever limit might be looked upon as practical and desirable) in 1.00 gram of sample, might be set. The methods in many cases could be rapid colorimetric methods. The above is simply an example of many indefinite tests for purity in the present edition of the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 420.

Diner, Jacob: It is suggested that the language of the U. S. P. be made more specific in the tests for absence of impurities. Instead of merely stating ("sulphate") when the absence thereof is required, the U. S. P. directions should read (absence of sulphate).—Am. Druggist, 1920, v. 68, No. 4, p. 18; J. Am. Pharm. Assoc., 1920, v. 9, p. 493.

Committee on U. S. P. Philadelphia Coll. Pharm.: In salts containing water of crystallization, the U. S. P. assays frequently fail in their object. A deficiency in purity may be concealed by a deficiency in water. For example, sodium phosphate or thiosulphate of substandard purity may still show the required purity of the assay and thus defeat the object of the U. S. P. To remedy this defect, it is suggested that suitable tests, limiting the proportion of such impurities as are likely to be present and are not taken care of by the assay, be introduced. In the instances cited above, a test for limit of sulphate will be appropriate. Another method to overcome this is to assay the dried (anhydrous) salt. The latter procedure, however, is not always practicable.—Am. J. Pharm. 1920, v. 92, p. 552.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is highly desirable that the expression, "drying to constant weight," so frequently used in the Pharmacopœia, be defined. A definition along the following lines might answer. The expression "dried to constant weight" is intended to mean that two consecutive weighings, after drying for an additional hour, do not differ by more than 0.1 per cent.—Am. J. Pharm. 1920, v. 92, p. 553.

Ewe, Geo. E.: The N. F. test for heavy metals makes no provision for those metals beyond the lead and arsenic group, principally zinc. A modification of the method is described.—Am. J. Pharm. 1920, v. 92, p. 173.

LaWall, Charles H.: A discussion of the possibility of improving the U. S. P. monographs for inorganic chemicals.—J. Am. Pharm. Assoc. 1920, v. 9, p. 679–683.

Webber, M. Ebbert: There should be included, along with other general tests, a solubility test, where practical, for all official chemicals. This test should be in addition to the present solubility data. For instance, the U. S. P., IX, requires the sodium salicylates produce a "nearly clear and colorless solution" when dissolved in 10 parts of distilled water. The author states that although he has not made a careful analysis of the U. S. P., IX, to ascertain how many other chemicals have a similar requirement, he feels safe in saying that the number is very small.—J. Am. Pharm. Assoc. 1920, v. 9, p. 420.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the term "negligible" be used instead of "unweighable," retaining for it the same definition as is now used for unweighable.—Am. J. Pharm. 1920, v. 92, p. 553.

Kolthoff, I. M.: The results obtained in the examination of salts for impurities giving an acid or alkaline reaction are presented. The salts examined were those official in the Dutch pharmacopœia.—Pharm. Weekblad, 1920, v. 57, p. 252–265.

Kiplinger, C. C.: Several substitutes for platinum wire in bead and flame tests are described. For bead tests, a piece of graphite, like that present in ordinary lead pencils, is recommended. For flame tests the use of strips of filter paper saturated with the substance to be tested or an ordinary iron nail is proposed.—J. Ind. & Eng. Chem. 1920, v. 12, p. 500.

Kolthoff, I. M.: Experimental notes on the significance of dissociation constants in identifying acids and detecting impurities.—Pharm. Weekblad, 1920, v. 57, p. 514–518.

Grant, E. H.: Some new tests for the following purgative drugs are described: Scammony, jalap, leptandra, gamboge, podophyllum, senna, rhubarb, and cassia fistula.—J. Am. Pharm. Assoc. 1920, v. 9, p. 763–766.

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Harvey, E. M.: A study of the color changes of the diphenylamine reaction for the identification of nitrates.—J. Am. Chem. Soc. 1920, v. 42, p. 1245–1247.

Hennings, C. R.: Analytical notes on the analysis of bismuth tribromphenolate.—Apoth.-Ztg 1920, v. 35, p. 53.

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Bolland, A.: Some microchemical reactions of iodic acid are described.—Compt. rend. acad. sc. 1920, v. 171, p. 955–957.

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van Rijn, W.: A review of a small volume by E. Merck entitled *Prüfungsvorschriften für die pharmazeutischen Special-Präparate.*—Chem. Weekblad, 1920, v. 17, p. 407.

Kilmer, Frederick B.: Outlines of methods for the examination of various drugs and chemicals used by the firm of Johnson & Johnson are presented.—J. & J. Lab. Notes, 1920, No. 2, p. 9–26.

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Lamb, Arthur B., et al.: The copper flame test for halogens in air By making it cumulative, the test has been rendered much more sensitive, so that as little as one part of halogens in 50,000,000 or 100,000,000 parts of air is readily detected.—J. Am. Chem. Soc. 1920, v 42, p. 78–85.

van Winkle, W. A., and Smith, G. McP.: A scheme for the rapid determination of halogen in organic substances by a method of simple combustion is described.—J. Am. Chem. Soc. 1920, v. 42, p. 333–347.

Garcia, Eduardo D.: A modification of the method of Starck and Thorin for the determination of fluorides is described.—Anal. soc. quim. Argentina, 1920, v. 8, p. 321–324.

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Willard, H. H., and Cake, W. E.: Experimental data obtained in the iodometric determination of amino nitrogen in organic substances are presented.—J. Am. Chem. Soc. 1920, v. 42, p. 2646.

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Hartmann, W.: A description of a new method for the estimation of carbon dioxide in alkali bicarbonate in the presence of carbonate. Results are given in detail showing the wide applicability of the method.—Ztschr. anal. Chem. 1920, v. 59, p. 289–297.

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METALS.

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INDICAN.

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SUGAR.

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DeSaint-Rat, L., and Confaut, J.: A method for the determination of small quantities of reducing sugars in the body fluids is described.—Bull. sc. pharmacol. 1920, v. 27, p. 289–293.

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Committee on U. S. P. Philadelphia Coll. Pharm.: Benedict's solution of glucose should be introduced into the U. S. P. Mention should be made of the fermentation method for the determination of glucose in urine.—Am. J. Pharm. 1920, v. 92, p. 642.

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UREA.

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FECES.

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Borde, M.: Experimental data are given to show that sodium metaphosphate or picric acid may be used in place of sodium tungstate for the removal of albumin from the blood previous to the colorimetric determination of glucose according to the procedure of Folin and Wu —Bull. soc. pharm. Bordeax. 1920. v. 58, p. 214–225.

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Rieger, John B.: A method for the estimation of chlorides in whole blood is essentially an application of the Volhard titration and the protein-free filtrate obtained by the Folin system of blood analysis.—J. Lab. & Clin. Med. 1920, v. 6, p. 44–45.

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Reiman, Clarence K., and Minot, Annie S.: A method is developed for the determination of manganese in blood and tissue which is more rapid and has fewer sources of error than the other methods in use at present.—J. Biol. Chem. 1920, v. 42, p. 329–345.

STAINS.

Committee on U. S. P. Philadelphia Coll. Pharm.: If staining solutions are to be retained in the U. S. P., mention should be made of Pappenheim's Solution and Aniline Gentian Violet, giving the ingredients and methods of preparation.—Am. J. Pharm. 1920, v. 92, p. 642.

Ponselle, A.: The preparation of neutral distilled water for use in the preparation of stains is described. Bromocresol purple is recommended as the most suitable indicator to insure freedom from acidity.—L'Union pharm. 1920, v. 61, p. 45.

Crossley, M. L.: A report of experiments showing the selective bactericidal action of gentian violet.—J. Am. Chem. Soc. 1919, v. 41, p. 2083–2090.

Rawitz, B.: The use of sodium thiosulphate in place of ammonium alum in staining with hematoxylin, cochineal, and carmine is recommended.—Abstr. Bact. 1920, v. 4, p. 229.

Thibault, Fred: A description of a method for making a polychrome methylene blue stain for fresh tissues. The time required for ripening is eliminated by boiling the mixture, the stain on cooling and filtering being available for immediate use.—J. Am. M. Assoc. 1920, v. 75, p. 1423.

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Hollborn, Karl: A description of a new method for dissolving and using eosin-methylene blue.—Deutsch. med. Wchnschr. 1920, v. 46, p. 77.

Nazin, E.: A modification of Pappenheim's method of staining is described.—Presse médicale, 1920, v. 28, p. 424.

Albert, H.: A description is given of a new toluidine blue stain for diphtheria bacilli and of the technique of staining.—J. Am. M. Assoc. 1920, v. 74, p. 128; Am. J. Public Health, 1920, v. 10, p. 334–337.

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Konrich: A modified Ziehl-Nielsen method for the staining of tubercle bacilli consists in treating the material with carbol fuchsin, decolorizing with sodium sulphite solution and finally counterstaining with malachite green.—Deutsch. med. Wchnschr. 1920, v. 46, p. 741.

Weiss, M.: A 0.1 per cent permanganate solution applied for 2 to 5 minutes is used for counterstaining preparations stained for tubercle bacilli by the Ziehl-Nielsen method.—Ztschr. Tuberk. 1919, v. 30, p. 330, through Chem. Abstr. 1920, v. 14, p. 1839.

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Deussen, Ernst: A study of the nature and significance of the Gram stain, including a review of the literature and a report of new experiments.—Biochem. Ztschr. 1920, v. 103, p. 123–141.

Benians, T. H. C.: A report of further investigations into the principles underlying Gram's stain, with special reference to the bacterial cell membrane.—J. Path. & Bact. 1920, v. 23, p. 401–412.

Kenneth, N.: A description of a modification of the Gram stain. The staining solutions are modified to insure greater stability.—Abstr. Bact. 1920, v. 4, p. 4.

Shunk, Ivan V.: A modification of Loeffler's method for staining flagella differs from previous modifications chiefly in the use of a solution of aniline oil in alcohol (1:4) in connection with the ferric chloride-tannic acid mordant used by Bunge.—J. Bact. 1921, v. 5, p. 181–187.

Lancereaux, E.: A description of a procedure for the staining of cilia. The formula for the preparation of the stain is given.—Presse médicale, 1919, No. 56, p. 565, through Bull. sc. pharmacol. 1920, v. 27, p. 347.

Imai, K., and Hidaka, H.: A description of a modified silver method of staining cilia and spirochaetes.—Japan Med. World, 1920, p. 57, through J. Am. M. Assoc. 1920, v. 74, p. 766.

CULTURE MEDIA.

Schneider, Albert: The preparation of culture media and stains given in the U. S. P. should be in accordance with the recommendations of the American Public Health Association and the U. S. Public Health Service, etc. All that the committee on bacteriology would be required to do would be to copy carefully the methods of the Laboratory Section of the American Public Health Association and of the U. S. Public Health Service after consulting with these bodies.—J. Am. Pharm. Assoc. 1920, v. 9, p. 420.

Committee on U. S. P. Philadelphia College Pharm.: Why should the U. S. P. refer to Liebig's beef extract or any other make? It is true that this make is very satisfactory, but the Pharmacopœia should not name any specific manufacture.—Am. J. Pharm. 1920, v. 92, p. 641.

Ponselle, A.: A short review of the theory of acidity and of the principles underlying the methods for the determination of hydrogen-ion concentrations of culture media.—Bull. Inst. Pasteur, 1920, v. 18, p. 601–610.

McIntosh, James, and Smart, William A. M.: A review of methods for the determination of the reaction of culture media.—Brit. J. Exp. Path. 1920, v. 1, p. 9–30, through Chem. Abstr. 1920, v. 14, p. 3094.

Meacham, M. R., et al.: A preliminary note on some mixed buffer materials for regulating the hydrogen-ion concentration of culture media and of standard buffer solutions.—J. Bact. 1920, v. 5, p. 491–499.

Medalia, Leon S.: A report of experimental work on the preparation and use of color standards for the colorimetric measurement of hydrogen-ion concentrations p_H 1.2 to p_H 9.8.—J. Bact. 1920, v. 5, p. 441–468.

Grace, L. G., and Highberger, F.: A report of studies to determine the variations in the hydrogen-ion concentration in uninoculated culture media.—J. Infec. Dis. 1920, v. 26, p. 457–462.

Bessemans, A.: A review of the colorimetric methods which have been proposed for the determination of the hydrogen-ion concentration of culture media, and of the methods of adjusting media to a desired hydrogen-ion concentration.—J. pharm. Belg. 1920, v. 2, p. 833–840.

Wyant, Zae N.: The results of experiments show that ordinary bouillon cubes can be used in general laboratory work in place of the beef extract or meat media used at present.—J. Bact. 1920, v. 5, p. 189–190.

Masucci, Peter, and Ewe, George E.: Notes on the selection of sugars for bacteriologic work.—J. Lab. & Clin. Med. 1920, v. 5, p. 609–612.

Ayres, S. H., and Mudge, C. S.: Formulas are given for three agar media containing skim-milk powder, which are suitable for the determination of bacteria in milk.—J. Bact. 1920, v. 5, p. 565–588.

Bitter, Ludwig: Tropon, a peptone prepared by digestion of legume protein, is suggested as a substitute for media peptone in the preparation of culture media.—Deutsch. med. Wchnschr. 1920, v. 46. p. 830.

Czaplewski, E.: Blood serum, treated with just sufficient alkali to render it noncoagulable after sterilization, is recommended as an excellent base for nutrient media which are readily heat-sterilizable.—Deutsch. med. Wchnschr. 1920, v. 46, p. 828–829.

Ayers, S. Henry, and Rupp, Philip: Notes on the use of extracts of pure dry yeast in the preparation of culture media.—J. Bact. 1920, v. 5, p. 89–98.

Norris, Dorothy: Casein is hydrolyzed with pancreatic extract and this is used as a substitute for media in the preparation of nutrient broth and agar medium.—Indian J. Med. Res. 1920, v. 7, p. 536–544.

Legroux, René, and Mesnard, Joseph: Vitamines for the culture of bacteria are obtained by extracting the kidney, liver, and heart with neutral or faintly acid physiologic salt solution.—Compt. rend. acad. sc. 1920, v. 170, p. 901–904.

Grace, Linwood G.: A description of a method of preparing bacteriological media containing ascites fluid.—J. Lab. & Clin. Med. 1920, v. 5, p. 253–254.

Morishina, Kan-Ichiro: Experiments with the use of phenol red-China blue as an indicator in fermentation tests of bacterial cultures.—J. Infec. Dis. 1920, v. 26, p. 43–44.

Sazerac, Robert: A study of the cultivation of the tubercle bacilli on autolyzed yeast medium.—Compt. rend. acad. sc. 1920, v. 171, p. 278–279.

Alilaire, E., and Fernbach, E.: Directions are given for the culture of tubercle bacillus in media prepared with acacia instead of glycerin.—L'Union Pharm. 1920, v. 61, p. 297; Compt. rend. acad. sc. 1920, v. 171, p. 375–376.

5. VEGETABLE DRUGS.

Ballard, C. W.: A discussion of the official standards for botanical drugs under the following headings: definite botanical origins, tissue terminology, descriptions of foreign materials, indication of diagnostic characters, indication of possible adulterants, standard fineness for powders used in prescriptions, moldy drugs, moisture in crude drugs.—J. Am. Pharm. Assoc. 1920, v. 9, p. 676–678.

Committee on U. S. P. Philadelphia Coll. Pharm.: The following recommendations have been submitted to the U. S. P. revision committee:

1. That the subcommittee on botany and pharmacognosy be given authority to investigate the source of certain official substances like

Saigon cinnamon, asafetida, etc., which are at present of either indefinite or partly indefinite origins.

2. That this subcommittee make a searching inquiry into plant names that are adopted to represent the botanical origins of vegetable drugs, to determine priority in accordance with the Vienna code.

3. That histological descriptions be given in the text of the U. S. P. for all crude drugs considered therein which possess cellular structure.

4. That the range in width of the medullary rays of various drugs be based on studies of longitudinal-tangential sections.

5. That the limit of ash for all drugs be revised in accordance with the latest data.

6. That the family name be the sole group name to follow natural origins in the drafting of official definitions for drugs of vegetable or animal source.

7. That the list of plant synonyms be carefully revised.

8. That a limit of impurities be stated in the definition for *Prunus Virginiana* and that this be fixed tentatively as "not more than 3 per cent of wood or other foreign matter."

9. That a determination of the crude fiber allowable in powdered wild cherry bark be made, to the end that a limit of impurities be placed on the powdered or ground drug.

10. That the term "micron" be employed in the next revision of the U. S. P. in place of "millimeter (mm.)" for designating the size of microscopic objects and that a statement be placed in the preface as to the reason for this change, which is that the micron is the standard unit of microscopic measurement.

11. That a limit for extraneous matter be fixed by the U. S. P. in each defininition of a vegetable drug where such contamination is unavoidable.—Am. J. Pharm. 1920, v. 92, p. 554–555.

Éwe, George E.: It is suggested that a formal letter be addressed by the U. S. P. revision committee to the crude drug collecting, jobbing, and grinding companies asking for cooperation in making the standards for crude drugs more practical.—J. Am. Pharm. Assoc. 1920, v. 9, p. 287.

Ritchie, Margaret: It is recommended that the botanical origin of drugs included in the U. S. P. be fixed as far as possible, and that a representative of the revision committee be sent to study their source if necessary.—J. Am. Pharm. Assoc. 1920, v. 9, p. 288.

Gane, E. H.: In recognizing as official different varieties of the same drug, the use of any of these should be permissible in making preparations therefrom. If African, Cochin, and Japanese ginger are good enough to be officially recognized, we should not be restricted to the use of Jamaica ginger in compounding.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gathercoal, E. N.: A discussion of proposed changes in the monographs of some of the vegetable drugs of the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 700–702.

Kebler, L. F.: It is recommended that limit tests for ash, stems, wormy and infected material be provided for vegetable drugs.—J. Am. Pharm. Assoc. 1920, v. 9, p. 288.

Schneider, Albert: A number of suggestions for the revision of the U. S. P. tests for vegetable drugs are presented. These suggestions include comments on microscopic descriptions, the ash content of vegetable drugs, and analytical methods.—Drug. Circ. 1920, v. 64, p. 86.

Anon.: In a discussion of crude drug problems, it is stated that the U. S. P. requirements are generally impractical.—Proc. Am. Drug Mfg. Assoc. 1920, p. 284–287.

Ewe, George E.: In the case of the crude drugs of the N. F. for which no practical chemical or physiologic methods of standardization are available, it is suggested that standards based upon the amount of soluble matter extracted by the menstruum used in preparing the fluid extracts or tinctures from these drugs should be adopted in order to establish uniformity in the use of these variable medicinal substances.—Am. J. Pharm. 1920, v. 92, p. 168.

Clute, Willard N.: A list is given of the native plants that may be substituted for official drugs.—Am. Bot. 1919, v. 25, p. 47–50.

Klappert, Ludwig: It is claimed that the geological formation of a region, and especially its flora, is closely connected with the prevalence of local diseases. In localities where disease is prevalent, the remedy is also to be found.—Pharm. Ztg. 1920, v. 65, p. 47.

Rosenthaler, L.: A discussion of the value of variation statistics as an aid to pharmacognosy. Data of this nature are given for Areca nut and Calabar bean.—Ber. deutsch. Pharm. Gesellsch. 1920, v. 30, p. 8–82 and 392–397.

Rosenthaler, L.: A short note on the relation between the weight of drugs per unit volume and their content of physiologically active substances. The percentage of active constituent present is found to vary inversely with the weight in the case of the drugs examined.—Pharm. Zentralh. 1920, v. 61, p. 629–630.

Viehoever, Arno: Data are presented showing the weights of unit volumes of fennel, areca nut, black mustard, white mustard, and some of their adulterants.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154–155.

Rusby, H. H.: There is a growing tendency among taxonomists to give the groups *Mimosaceae*, *Caesalpiniaceae*, and *Papilionaceae* family rank. The same may be said of the groups *Drupaceae* and *Malaceae*, heretofore treated as subfamilies of the *Rosaceae*. Furthermore, it is the opinion of the author that *Melanthaceae*, *Conval-*

lariaceae, and *Alliaceae* represent families distinct from the *Liliaceae*.—Am. Druggist, 1920, v. 69, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 240–241.

Stanford, E. E., and Kirkpatrick, S. D.: The world trade, production, and consumption are discussed for some 50 foreign and domestic drugs of chief importance in the drug trade.—Tariff Information Series, 1920, No. 19, p. 69.

Stich, Konrad: A series of lectures on the collection of medicinal plants and their classification according to therapeutic use.—Pharm. Zentralh. 1920, v. 61, p. 219–220, 247–248, 260–261, 282–283, 309–310, 343–345, 366–368, 392–393, 419–420, 449–451.

van Wisselingh, C.: A contribution to the study of seed coverings of the *Onagraceae*, *Lythraceae*, *Tropaeolaceae*, *Hypericaceae*, *Convolvulaceae*, and *Centrospermaceae*. A bibliography is appended.—Pharm. Weekblad, 1920, v. 57, p. 77–83, 125–139, 575–588, 605–614, and 1193–1211.

Verschaffelt, Ed.: A study of the effect of gaseous poisons on growing plants.—Pharm. Weekblad, 1920, v. 57, p. 1163–1175.

Felter, H. W.: Notes on the medicinal plants of the South and their introducers.—Nat. Eclectic M. Assoc. Quart. 1920, v. 12, p. 425–433.

Garr, H. D., and Éwe, Geo. E.: A study of hemlock bark from the standpoint of its uses in pharmacy. The chief pharmaceutical uses of the bark are described and its selection for particular purposes is discussed. Tentative standards are suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 567–573.

Koch, Felix J.: Notes on the common drugs which grow in the wood lot, with special reference to podophyllum, Solomon seal, and rhubarb.—Am. Druggist, 1920, v. 68, p. 42–46.

Anon.: Notes on the medicinal plants of Bahia, Brazil. A list of the most important medicinal plants found at convenient distances from Bahia is given.—J. Roy. Soc. Arts, 1920, v. 58, p. 691–692.

Higgins, Edward: An enumeration, including short descriptions, of medicinal plants growing in the State of Bahia, Brazil.—Am. Druggist, 1920, v. 68, No. 3, p. 37.

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Hanzlik, P. J.: A study of the physiological action of chelidonine, an alkaloid obtained from *Chelidonium majus*, indicates that its properties are similar to those of papaverine and that it should be useful in spasm of smooth muscle as in angina pectoris, asthma, intestinal colic, et cetera.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 236; J. Am. M. Assoc. 1920, v. 75, p. 1324–1325.

Dilling, Walter: *Lathyrus sativus* seeds are found to contain two alkaloids, which differ slightly in their action and are separable by the Stas-Otto process in groups two and four. The characteristic action of both alkaloids in frogs is the early production of paresis due to action on the central nervous system.—J. Pharmacol. & Exper. Therap. 1920, v. 14, p. 359–366.

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Troeger, J., and Bönicke, K.: The existence of the alkaloids galipidine and casparidine in angostura could not be confirmed. An examination of the former base prepared by Beckurts and Frerichs has shown that it gives an oxalate identical with that of galipine.—Arch. Pharm. 1920, v. 258, p. 250–277.

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Späth, Ernst: A note on loturine, an alkaloid found in the bark of the Indian *Symplocos racemosa*, states that it is identical with aribine and harmine.—Monatsh. Chem. 1920, v. 41, No. 5, p. 401–403.

Späth, Ernst: The alkaloid, aribine, occurring in *Arariba rubra* Mart. is found to be identical with harmine obtained by O. Fischer from the seeds of *Peganum harmala*.—Anz. Akad. Wiss. Kien, Math.—Nat. Kl. 1919, v. 56, No. 18, p. 242, through Zentralbl. Biochem. u. Biophys. 1920, v. 22, No. 7, p. 393.

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Späth, E.: A report of researches to determine the constitution of laudanine.—Monatsh. Chem. 1920, v. 41, p. 297–304.

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Tanret, G.: The statements of Hess and Eichell with regard to the optical activity of pelletierine and methylpelletierine are controverted and the correctness of the original observations of C. Tanret is maintained.—Compt. rend. acad. sc. 1920, v. 170, p. 1118.

van Itallie, L., and LeCoultre, M.: Aristochine and optochine can be distinguished from one another by the difference in the crystalline form of their nitrates. Illustrations are given showing these differences.—Pharm. Weekblad, 1920, v. 57, p. 741–742; see also A. L. W. E. van der Veen, p. 742–743.

Wadsworth, R. V.: Data are given showing the solubility of theobromine in eleven different organic salts at 15.5° C. and at the boiling point of the liquid.—Analyst (The) London, 1920, v. 45, p. 133.

Mossler, Gustav: Suggestions for the new edition of the Ph. Germ. Improvements in methods for testing for other cinchona alkaloids in quinine salts are discussed. Analytical data obtained in testing a number of samples are presented.—Pharm. Monatsh. 1920, v. 1, p. 2–7, 17–22.

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7. MISCELLANEOUS PLANT CONSTITUENTS.

Anon.: Some notes on the nature and sources of elemi.—Chem. & Drug. 1920, v. 92, p. 374.

Tschirch, A.: Sarcocolla is stated to be the secretion of the stem of the Persian plant, *Astragalus sarcocolla* Dymock. An analysis of the material showed starch, bassorin, and saponin to be present —Schweiz. Apoth.-Ztg. 1920, v. 58, p. 113–116.

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Rippel, A.: A method for the determination of phytin in plant extracts is based on the fact that it can be precipitated with copper acetate in the presence of inorganic phosphates.—Biochem. Ztschr. 1920, v. 103, p. 163–172.

Czapek, F.: A description of a method for the detection of lipoids in plant tissues.—Ber. d. deutsch. bot. Gesellsch. 1919, v. 37, No. 3, p. 207–216, through Ztschr. wiss. Mikros. 1920, v. 37, p. 153–154.

Kondo, Heisaburo, and Amano, Umetaro: On the constituents of Korean ginseng. III. An investigation of the saponin-like glucoside found in the methyl alcohol extract of the drug.—J. Pharm. Soc. Japan, 1920, No. 466, Dec. p. 1027.

Rosenthaler, L.: A contribution to our knowledge of the occurrence of hydrocyanic acid in plants. IV. The seeds of *Schleichera trijuga*.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 17–20.

Stransky, E.: Data on the occurrence of chelidonic acid are reported. In addition to the sources already established, the acid was obtained from *Convallaria majalis* and from sabadilla seed.—Arch. Pharm. 1920, v. 258, p. 56–59.

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Patschovsky, N.: Notes on the occurrence and detection of oxalic acid (dissolved oxalate) in plant tissues.—Ber. d. deutsch. bot. Gesellsch. 1919, v. 37, No. 9, p. 542–548, through Ztschr. wiss. Mikros, 1920, v. 37, p. 154.

Plahl, L. W.: A report of researches on the detection of oxalate in plant tissues. The tests were based on the fact that a precipitate is formed when a solution of oxalic acid is treated with a solution of silver nitrate containing free nitric acid.—Ztschr. wiss. Mikros. 1920, v. 37, p. 130–135.

Sollmann, Torald: A sketch of the medical history of Dragon's blood.—J. Am. Pharm. Assoc. 1920, v. 9, p. 141–144.

Asahima, Y. and Asano, M.: A study of spilanthol, the pungent principle of Para cress.—J. Pharm. Soc. Japan, 1920, No. 460, June, p. 503.

Asahina, Y., and Fujita, A.: A report of researches to determine the constitution of anemonin. The effects of acids and alkalies are reported.—J. Pharm. Soc. Japan, 1920, No. 461.

Bertolo, P.: A report of some new researches on artemisin.—Gaz. chim. ital. 1920, v. 50, part 1, p. 109–119.

Gorter, K.: A report of researches on "hyptolid," the bitter principle extracted from *Hyptis pectinata* Poit.—Bull. Jard. Bot. Buitenzorg. 1920, (3), v. 1, p. 327, through J. Chem. Soc. Lond. 1920, v. 118, p. 495.

Heyl, Frederick, and Hopkins, Harris H.: A chemical study of the ragweed pollen proteins.—J. Am. Chem. Soc. 1920, v. 42, p. 1738–1743.

Anderson, R. J.: Analytical data are presented showing the composition of inositol phosphoric acid of plants. The composition of the phytic acid of plants is found to correspond to inositol hexaphosphoric acid.—J. Biol. Chem. 1920, v. 44, p. 429–438.

Fotler, L.: A chemical study of usarin, a crystalline substance isolated from gomphocarpus root.—Arch. Pharm. 1917, v. 255, p. 550–552, through J. Chem. Soc. Lond. 1919, v. 116, part 1, p. 492–493.

Nooyen, A. M.: A study of the constitution and properties of ursone. Ursone is a general constituent of the *Ericaceae* and is also found in some varieties of Ilex.—Pharm. Weekblad. 1920, v. 57, p. 1128–1142.

Salkowsky, E.: A report of researches on the carbohydrates of Iceland moss.—Ztschr. physiol. Chem. 1920, v. 110, p. 158.

Schmiedeberg, O.: A report of studies on chitin and chitin compounds in animals and plants. Hexaacetylchitin, pentaacetylchitin, tetraacetylchitin and triacetylchitin are described.—Arch. exper. Path. u. Pharmakol. 1920, v. 87, p. 76–85.

Viehoever, Arno, and Clevenger, Jos. F.: A report on the relative content of volatile oil and ash in sage leaves and stems.—J. Am. Pharm. Assoc. 1920, v. 9, p. 563–567.

8. ASSAY PROCESSES.

Berg, Frantz F.: A number of suggestions are made for improvements in the assay processes of the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 772–775.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is recommended that the words, "not more than a very faint," as found on lines 26 and 29 (p. 594) of the U. S. P. be omitted and the word "no" substituted so that the phrase shall read: "Shows no cloudiness on the addition of."—Am. J. Pharm. 1920, v. 92, p. 652.

Committee on U. S. P., Philadelphia Coll. Pharm.: The readoption and putting into effect of the recommendations that tests of identity and purity be given for determining the character of the product of assays is urged.—Am. J. Pharm. 1920, v. 92, p. 548.

Arny, H. V.: In these days, when chloroform is very expensive, attention should be given to the use of other "shaking-out" solvents which are cheaper and equally efficient.—J. Am. Pharm. Assoc. 1920, v. 9, p. 973.

Committee on U. S. P., Philadelphia Coll. Pharm.: The readoption of the menstruum of ether, three parts, and chloroform, one part, as formerly used in the U. S. P., VIII, is recommended.—Am. J. Pharm. 1920, v. 92, p. 652.

Committee on U. S. P., Philadelphia Coll. Pharm.: A standard method for the determination of the alcohol-soluble constituents of asafetida, benzoin, gambir, gamboge, kino, and myrrh is needed in the U. S. P. A continuous-extraction method is recommended, because of its ease of operation and the saving of time and solvent. As some of the constituents dissolve rather slowly a test should be included to determine if the extraction is complete.—Am. J. Pharm. 1920, v. 92, p. 652.

Committee on U. S. P., Philadelphia Coll. Pharm.: Instead of a direct shake-out method for the extraction of alkaloids, it is suggested that the maceration method would decidedly lessen the danger of emulsification and require a fewer number of shake outs to extract the alkaloid. The extract should be dissolved in a suitable solvent, spread over oak sawdust, evaporated at a low temperature, transferred to a flask, and treated in the manner described for powdered extract of belladonna. Similar methods could be used for fluidextracts of belladonna, guarana, hydrastis, hyoscyamus, and nux vomica; and also tinctures of belladonna, hydrastis, hyoscyamus, nux vomica, and stramonium. At present the maceration method is used for fluidextracts of aconite, cinchona, ipecac, and pilocarpus; and tincture of aconite, cinchona, and physostigma.—Am. J. Pharm. 1920, v. 92, p. 653.

Engelhardt, H.: Some general remarks on the evaluation of vegetable drugs.—D.-A. Apoth.-Ztg. 1920, v. 41, p. 127–128.

Auenmüller: A summary of a critical review of official assay methods for the active principles of drugs and their preparations, aiming at the selection of the best method. The results are taken from the theses of Dichgans, Hebeisen, and Wolter, the work of which was directed by A. Tschirch. Methods are discussed for the following: Nux vomica, extract of nux vomica, tincture of nux vomica, ipecac, tincture of ipecac, aconite, tincture of aconite, pomegranate, belladonna leaves, extract of belladonna, tincture of belladonna, hyoscyamus, hydrastis, fluidextract of hydrastis, digitalis, areca nut, cinchona, fluidextract of cinchona, tincture of cinchona, rhubarb, rhamnus frangula, cascara sagrada, senna, and aloe.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 433–436, 451–453, and 465–469.

Bohrisch, P.: A review of an inaugural dissertation by Fritz Hebeisen dealing with an investigation of methods of evaluating drugs, with a view to reaching an international agreement. Cinchona bark, areca nut, and the anthraquinone drugs were taken as a basis for the experimental work.—Pharm. Zentralh. 1920, v. 61, p. 90–92.

Kolthoff, I. M.: Experimental data are given which show that alkaloids and their salts can be accurately determined by the electrometric method.—Ztschr. anorg. Chem. 1920, v. 112, p. 196–208.

Beal, George D., and Hamilton, Thomas S.: An experimental study of the "shaking-out" method for the quantitative estimation of alkaloids. II. Effect of clarification and "salting-out." Analytical data are given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 9–15.

Eberhard, A.: Notes on the use of methyl red in the determination of alkaloids in cinchona, belladonna, nux vomica, pomegranate and the galenical preparations made therefrom.—Apoth.-Ztg. 1920, v. 35, p. 318–319.

Herzog, J.: An investigation of the suitability of methyl red as an indicator in alkaloidal assay processes. Data showing the results obtained using this indicator as compared with the results by the use of other indicators are presented for cinchona, extract of belladonna, extract of hyoscyamus, ipecac, and nux vomica.—Apoth.-Ztg. 1920, v. 35, p. 216–217.

Taigner, S. E.: An account of the determination of alkaloids by precipitation with silicotungstic acid. Data are given on the employment of this reagent in the determination of atropine, cocaine, and strychnine.—Ztschr. anal. Chem. 1919, v. 58, p. 346–352, through J. Pharm. Belg. 1920, v. 2, p. 695.

Rapp: A description of a new method for the quantitative estimation of the alkaloids of the German pharmacopœia, with special reference to the determination of the alkaloids in hyoscyamus, ipecac, nux vomica, and opium. The method differs from others in that gypsum and anhydrous sodium sulphate are used for the removal of chlorophyll and other coloring matter.—Südd. Apoth.-Ztg. 1919, v. 59, p. 919; Pharm. Zentralh. 1920, v. 61, p. 551–555, 569–574.

Heiduschka, A., and Wolf, L.: The low results obtained by Rapp's method for the estimation of alkaloids is due to the partial absorption of the chloroform by the plaster of Paris paste. This may be prevented by mixing sand or powdered glass with the paste. Detailed directions are given for the determination of alkaloids in cinchona bark and nux vomica.—Südd. Apoth.-Ztg. 1920, v. 60, p. 142–143; J. Soc. Chem. Ind. 1920, v. 39, p. 465a.

Oddo, Bernardo: Notes on the evaluation of the extracts of the Ph. Ital.—Boll. chim.-farm. 1920, v. 59, p. 363–366.

Burdick, Alfred S.: It is suggested that, in the assay of belladonna root and similar assays, the final chloroform extracts of the alkaloids should be filtered through a small filter paper before evaporating to dryness.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

H. M.: Modifications of the Ph. Germ. method for the determination of alkaloids in the extracts of belladonna and hyoscyamus are recommended.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

Fuller, H. C.: A method for the determination of atropine in tablets was studied and a tentative method for the determination of strychnine in liquids was adopted.—J. Assoc. Off. Agric. Chem. 1920, v. 3, p. 379–380.

Ugarte, Trifón: A concise description of a method for the determination of caffeine in yerba maté, coffee, tea, kola nut and guarana. Comparative data are given showing the results obtained by the method of Paul and Cownley and by the sublimation method.—Anal. soc. quim. Argentina, 1920, v. 8, p. 413–415.

Meillere, G.: A method is described for the determination of caffeine in saccharated kola and the extract of kola.—J. pharm. et chim. 1920, v. 22, p. 18–19.

Vautier, E.: Caffeine in coffee mixtures and coffee substitutes is determined by the estimation of nitrogen or by weighing directly after purification. The methods are described in detail.—Ann. chim. anal. chim. appl. 1920, v. 2, p. 168–172.

Ceriotti, Antonio: Methods for the determination of the alkaloids of cacao are described.—Anales soc. quim. Argentina, 1920, v. 8, p. 400–403.

Austin, F. J., and Dohme, A. R. L.: A comparison of the U. S. P. and Fromme methods for the assay of cinchona. The Fromme method was found to give more concordant results gravimetrically than the U. S. P. method. It is also simpler and requires less time Titration according to the U. S. P. is difficult because the solution is often highly colored.—Proc. Am. Drug. Mfg. Assoc. 1920, p. 265–266.

Lehmann, F.: Experimental notes on the assay of cinchona. Of the two methods in use, that with dilute acid probably includes all the crystalline cinchona alkaloids; that in which the alkalies and organic solvents are used gives a less pure alkaloid, but a larger yield. A modification of the method given in the Swiss pharmacopœia is described.—Arch. Pharm. 1920, v. 258, p. 85; Pharm. J. 1920, v. 105, p. 287.

Bamberger, Curt: A new method for the determination of cinchona alkaloids is described.—Pharm. Zentralh. 1920, v. 61, p. 257–259, 267–270.

Wattiez, N.: Results obtained with the use of silicotungstic acid in the determination of hydrastine in hydrastis and its preparations are reported.—J. pharm. Belg. 1920, v. 2, p. 817–819.

Jones, H. W.: It is suggested that the U. S. P. directions for the collection of morphine crystals, in the assay of opium, be changed so that they will call for the use of a filter paper having a diameter of 9 cubic centimeters instead of a pledget of cotton. Data showing the difference in the results obtained under both conditions are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 51–52.

Jermstad, Axel: Author's abstract of a monograph dealing with a critical study of the determination of morphine in opium. All known methods were tested. A modified Helfenberg method suitable for the text of national pharmacopœias is described.—Répert. pharm. 1920, v. 32, p. 257–262.

Jermstad, Axel: Contributions to the determination of morphine in opium. I. An investigation of the comparative value of ether and ethyl acetate as the immiscible solvent in the opium assay.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 277–280.

Jermstad, Axel: Contributions to the morphine assay of opium. III. The determination of the water-soluble constituents of opium. IV. An investigation of the reliability of the Helenberger method for the determination of morphine in low grades of opium.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 421–423, 462–464.

Dott, D. B.: A discussion of the opium assay from an international standpoint. The assay methods of the British, French, and Japanese pharmacopœias are critically compared step by step. As an international method, that of the British pharmacopœia with suitable modifications is recommended.—Pharm. J. 1920, v. 104, p. 199–200.

Jones, Arthur J.: A critical review of a standardized method for the assay of opium proposed by D. B. Dott. Two slight errors in the method are pointed out.—Pharm. J. 1920, v. 105, p. 550–551; Chem. & Drug. 1920, v. 93, p. 1772.

Shilston, H. P.: Notes on an international method for the assay of opium, with some criticisms of the method proposed by Dott.—Pharm. J. 1920, v. 104, p. 413.

Rapp: Notes on the determination of the alkaloids of the Ph. Germ., with special reference to the estimation of morphine.—Apoth.-Ztg. 1920, v. 35, p. 17–20.

Ugarte, Trifón: A description of a new method for the determination of morphine in opium. The method is said to possess the advantages of requiring but a small quantity of the substance and to yield results sufficiently accurate for all practical purposes in a short space of time.—Anales soc. quim. Argentina, 1920, v. 8, p. 268–270.

Annett, H. E., and Sen, Haridas: A report of experimental tests with the various methods for the estimation of codeine, and a description of a new method which depends on the fact that, when opium is treated with slaked lime and water, all the morphine and codeine pass into solution. The codeine can then be separated by agitation with toluene.—Analyst (The) London, 1920, v. 45, p. 321–328.

Anneler, E.: A description of a new method for the determination of alkaloids, such as narcotine and papaverine, in preparations of the pantopon type.—Arch. Pharm. 1920, v. 258, p. 130–137 and 216.

McNally, W. D.: A description of a method for the determination of nicotine in cases of accidental poisoning with nicotine-containing insecticides.—J. Lab. & Clin. Med. 1920, v. 5, p. 213.

Hanke, Milton T., and Koessler, Karl K.: A description of a quantitative colorimetric method for the determination of tyrosine, thramine, and other phenols.—J. Biol. Chem. 1920, v. 41, No. 3, p. XLIX.

Daels, Félix: The method described by the author for the determination of the anthraquinones in purgative drugs gives higher results than are obtained by other methods in use. These exact analytical studies, as well as those on rheopurgarine and catharic acid, anthraquinone complexes, show that it is not only the hydroxymethylanthraquinones that produce the purgative effect, but that other substances must be taken into account with which these form complexes, the structure of which has not yet been determined.—Bull. acad. roy. med. Belg. 1920, v. 30, p. 129–140; J. pharm. Belg. 1920, v. 2, p. 713–716; Chem. Abstr. 1920, v. 14, p. 2051.

Anon.: A method for the determination of digitalin in digitalis leaves is described in detail.—Bull. sc. pharmacol. 1920, v. 27, part 1, p. 154–156.

Kariyone, Tasuo, and Kimura, Yushiro: A method for the estimation of santonin in wormseed depends on the lactone character of santonin. This method, first used on crystalline santonin by Katz, is modified by the authors and applied to wormseed.—J. Pharm. Soc. Japan, 1920, No. 405, p. 927–940.

DuBois, L.: The U. S. P. method for the assay of cantharides is adversely criticized. A modification of Baudin's method for the estimation of cantharidin is recommended.—Am. J. Pharm. 1920, v. 92, p. 157.

Anon.: A review of a volume by A. B. Lyons entitled *Practical Standardization by Chemical Assay of Organic Drugs and Galenicals*.—Drug. Circ. 1920, v. 64, p. 393.

Éwe, George E.: The following comparison of assays of crude drugs for the years 1909 to 1920, inclusive, is presented:

	Total.	Above.	Below.	Per cent above.		Total.	Above.	Below.	Per cent above.
Report of (year):					Report of (year):				
1909.........	395	313	82	79.3	1915.........	133	98	35	73.6
1910.........	340	291	49	85.6	1916.........	215	157	58	72.9
1911.........	263	224	39	85.1	1917.........	172	147	25	85.3
1912.........	298	235	63	78.8	1918.........	131	113	18	86.8
1913.........	382	264	118	69.1	1919.........	206	173	33	83.9
1914.........	286	221	65	77.2	1920.........	211	173	38	81.9

— Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

9. PHYSIOLOGICAL STANDARDIZATION.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that biologic assays should be called pharmacodynamic tests, and should be admitted only where the standardizing of the drugs or preparations cannot be satisfactorily determined by chemical assays, and where the proposed methods for pharmacodynamic testing are sufficiently developed to yield concordant results. Assays of this nature should be introduced for ergot, gelsemium, lobelia, and veratrum viride.—Am. J. Pharm. 1920, v. 92, p. 548 and 642.

Pearson, William A.: Physiological tests for potent drugs that cannot be standardized by chemical means should be made compulsory in the next Pharmacopœia. Physiological standards are not always ideal, but it is certain that a great improvement would be brought about in the quality of certain drugs if the U. S. P. demanded that they have a definite toxicity.—Drug. Circ. 1920, v. 64, p. 88.

Wulling, Frederick J.: The methods of physiological standardization ought to be further studied with a view toward inclusion of a greater number of such standardizations into the new U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Colson, H. C., jr.: The preparation of a standard extract, a standard fluidextract, and a standard tincture of aconite by an impartial laboratory, e. g., the Hygienic Laboratory, and the distribution of samples thereof to laboratories making physiological assays is recommended. The substitution of a 24-hour test period for the present 12-hour guinea pig test is also recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 305.

Cofman-Nicoresti, Jules: Notes on the value of the physiological standardization of drugs, including comments on the methods employed. A table is also given showing the past and present physiological standards for strophanthus, digitalis, and squill preparations as adopted by the Society of Apothecaries of London, also those of the U. S. P., IX.—Pharm. J. 1920, v. 104, p. 195.

Hamilton. Herbert C.: A paper discussing the scope and limitations of biologic assaying.—J. Am. Pharm. Assoc. 1920, v. 9, p. 576-579.

Patta, A.: A short discussion of the importance of biologic methods for the standardization of crude drugs and galenical preparations—Boll. chim.-farm. 1920, v. 59, p. 337–339.

Richaud, A.: Notes on the use of biological methods for the titration of certain toxic medicinal substances. Such tests as the Focke-Joanin method for the standardization of heart tonics are useful and at times indispensable; yet, biological differences in the test animals preclude an exact titration of the active principles, or even a strict comparison between two galenical preparations of the same kind.—J. pharm. et chim. 1920, v. 22, p. 257–265.

Pittenger, P. S.: Report of the committee on physiologic assaying of the American Pharmaceutical Association.—J. Am. Pharm. Assoc. 1920, v. 9, p. 614–619.

van Leeuwen, W. S.: A study of the relation of concentration of medicaments to their physiological activity.—Pharm. Weekblad, 1920, v. 57, p. 278–289, 310–322.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the U. S. P. method for the physiological assay of pituitary extract.—Am. J. Pharm. 1920, v. 92, p. 648.

Hercod: A retrospective study of the physiological standardization of pituitary solution.—Chem. & Drug. 1920, v. 93, p. 1221–1222.

Alday-Redonnet, T.: A report of experiments on the sensitization of the Trendelenberg frog preparation for the measurement of epinephrine. The frog muscle is rendered more sensitive by the addition of an additional amount of calcium to the perfusion liquid, the muscle apparently having been enlarged during perfusion by a disturbance of the equilibrium between calcium and potassium.—Biochem. Ztschr. 1920, v. 110, p. 306–318.

Jensen, C. O.: The axolotl or larva of *Ambystoma mexicana* are used for the standarization of thyroid preparations. Their usefulness depends on the fact that treatment with thyroid preparations is promptly followed by natural metamorphosis. The effect of the thyroid preparations does not parallel their iodine content.—Hospitalstidende, 1920, v. 63, p. 505, through J. Am. M. Assoc. 1920, v. 75, p. 1104.

Colston, H. C., jr.: The substitution of Houghton's 12-hour frog method under digitalis, strophanthus and squill for the one given in the U. S. P., IX, is suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Pittenger, Paul S. and Éwe, George E.: An account of the standardization of *Piscidia erythrina* (Jamaica dogwood).—Mulford Vet. Bull. 1920, v. 9, p. 48–53.

Éwe, George E.: Chemical and physiological tests for the standardization of veterinary blistering ointments are described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 255–257.

Pittenger, P. S.: A table is given showing the results of the physiological assay of 25 crude drugs made in the physiologic testing department of the H. K. Mulford Co.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 122.

6. PHARMACEUTICAL PREPARATIONS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the introduction of formulas for new "compound preparations" should be discouraged.—Am. J. Pharm. 1920, v. 92, p. 549.

Kebler, L. F.: It is recommended that every effort possible be made to reduce the percentage of alcohol in medicinal products to the amounts absolutely necessary for extracting medicinal principles, for bringing the medicaments into solution, or for preserving the preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286–287.

Sayre, L. E.: The official alcoholic and hydro-alcoholic preparations should all be carefully considered, in view of the prohibitory law, so that the revision committee can state with authority that the U. S. P. preparations contain alcohol only in the quantities necessary for extracting the medicinal principles and for the preservation of the materials.—J. Am. Pharm. Assoc. 1920, v. 9, p. 287.

Day, William B.: The possibility of reducing the alcohol content or increasing the drug strength, or both, in the U. S. P. preparations demands careful consideration at this time.—Drug. Circ. 1920, v. 64, p. 87.

Éwe, George E.: Data relative to the absolute alcohol content of pharmaceutical preparations made in accordance with the U. S. P., IX by the H. K. Mulford Co. are offered to the revision committee for the purpose of establishing standards of this nature in the U. S. P., X.—J. Am. Pharm. Assoc. 1920, v. 9, p. 286.

Éwe, George E.: A list of the alcohol percentages of N. F. preparations is desirable as being of assistance in preventing incompatibilities in the manufacture of preparations and the compounding of prescriptions.—Am. J. Pharm. 1920, v. 92, p. 173.

Light, S. R.: Report of the committee on alcoholic medicinals. It is recommended that the association take some action, through the appointment of a committee or otherwise, to further the approval of a number of formulas for specially denatured alcohol to be used in the manufacture of pharmaceutical products for internal use, as is now permitted in the case of tincture of iodine.—Proc. Am. Drug Mfg. Assoc. 1920, p. 154.

Francis, J. M.: It is stated that many preparations in the U. S. P. contain glycerin, which is unnecessary, and that others contain excessive amounts of glycerin. It is suggested that this matter be given careful consideration by the next revision committee.—J. Am. Pharm. Assoc. 1920, v. 9, p. 298.

Abel Scholar: It is recommended that the Ph. Brit. include formulas for concentrated infusions (1:7), particularly of such favorites as "Inf. Gent. Co."—Chem. & Drug. 1920, v. 93, p. 1165.

Snyder, J. P.: The indiscriminate use of glycerin in the various pharmaceutical preparations is advised against. It is suggested that experiments in the substitution of glycerin for sugar in a number of elixirs might prove of value.—Proc. New York Pharm. Assoc. 1920, p. 208.

Scoville, Wilbur L.: A report of experiments to ascertain the function of glycerin in tinctures and fluidextracts.—J. Am. Pharm. Assoc. 1920, v. 9, p. 868–877.

Scoville: A study of the influence of hydrochloric acid on cinchona preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 864–868.

Labat, A.: A discussion of formulas for the preparation of ointments and solutions containing sulphurated potash.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 226–232.

Lloyd, John U.: Descriptions are given of a number of old eclectic preparations, together with their properties and uses.—Eclect. M. J. 1920, v. 80, p. 259–273.

van Os, D.: A dissertation dealing with the pharmacy of formaldehyde, hexamethylentetramine and the preparations made therefrom —Pharm. Weekblad, 1920, v. 57, p. 1407–1412.

Robb, F. C. C.: Notes on the manufacture of gums and pastilles.—Pharm. J. 1920, v. 105, p. 187–188.

Utz: A discussion of the conditions in tablet manufacture which cause the finished product to be unsatisfactory.—Pharm. Zentralh. 1920, v. 61, p. 349–353.

Anon.: A book review calls attention to the 7th edition of a volume by Arends, Hahn and Holfert entitled *Specialties and Secret Remedies.*—Pharm. Weekblad, 1920 v. 57, p. 5.

van Meurs, G. J.: A review of the fifteenth edition of a volume by Karl Arnold entitled *Repetitorium der Chemie.*—Chem. Weekblad, 1920, v. 17, p. 136.

1. GENERAL FORMULAS.

Committee on U. S. P. Philadelphia Coll. Pharm.: The introduction of general formulæ into the U. S. P., IX, having been entirely satisfactory, it is recommended that their use be extended to every class of preparation where such a general treatment is possible.—Am. J. Pharm. 1920, v. 92, p. 549.

2. STANDARDIZATION.

Éwe, George E.: Extractive standards should be provided for crude drugs, fluidextracts, and tinctures which cannot be standardized by chemical or physiological methods.—J. Am. Pharm. Assoc. 1920, v. 9, p. 296.

Hamilton, Herbert C.: Experiments on the standardization of blood coagulants are described and the data obtained are discussed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 118–127.

3. GALENICALS.

Gane, E. H.: The tendency on the part of the U. S. P. revision committee to subordinate galenicals is probably the reason why no more attention has been given of late to the administration of medicines in convenient form. We still retain the old spirits, infusions, decoctions and pills, while the more up-to-date forms of medication such as the tablet, tablet triturate, lozenge, ampoule and capsule have been neglected. Surely tablets are worthy of inclusion in the U. S. P., especially as they are a distinctive contribution of America to pharmacy.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

4. DETERIORATION.

Éwe, George E.: Attention is directed to the fact that the following pharmaceutical preparations suffer physical changes from cold and freezing: magma of bismuth, elixirs containing terpene hydrate, Fowler's solution, compound solution of sodium phosphate, compound solution of hypophosphites, solution of potassium arsenite, solution of hydriodic acid, and solution of ferrous iodide.—Am. Druggist, 1920, v. 68, No. 11, p. 25–26.

Levy, R. L., and Cullen, G. E.: The deterioration of crystalline strophanthin in aqueous solution. Its relation to hydrogen-ion concentration and a method for its prevention. It is recommended that the crystalline strophanthin be dissolved in a buffer (0.02 M standard phosphate solution at p_H 7.0), and marketed in hard glass ampoules.—J. Exper. M. 1920, v. 31, p. 267–273.

Coebaugh, J. B. M.: A report of experiments on the protection of medicines against the action of light. Compounds listed in the Ph. Ndl. IV as requiring protection from light were subjected to various wave lengths of light obtained by filtering sunlight through solutions of quinine-sulphuric acid and of copper sulphate at different concentrations.—Pharm. Weekblad, 1920, v. 57, p. 1452–1457.

Éwe, George E.: An article discussing some of the causes for the lack of uniformity in the color of certain galenical preparations. It is pointed out that such variation is natural in many cases and does not affect the purity or strength of these preparations.—Drug. Circ. 1920, v. 64, p. 281–282.

5. INCOMPATIBILITY.

Braubach, Carl: A note on the incompatability of certain vegetable drugs due to the presence of inorganic constituents. The ash of these drugs was found to contain magnesium oxalate and soluble phosphates, which reacted in alkaline mixture to form the insoluble magnesium phosphate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 512–513.

Griffith, Ivor and Nichols, Adley B.: In an article entitled "prescription clinic," various incompatibilities are discussed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 979–983.

Secord, George L.: Notes on the dispensing of certain difficult prescriptions and incompatible mixtures.—Nat. Drug Clerk, 1920, v. 8, p. 170.

Kitchin, G. S.: Attention is directed to the incompatibility of salicylic acid with zinc oxide in aqueous mixtures.—Pharm. J. 1920, v. 104, p. 301.

Demo, A.: A note on the incompatibility of strychnine salts with glycerophosphates, cacodylates and sodium methylarsonate. Precipitation of the alkaloid may be avoided by rendering the alkaloidal solution neutral to phenolphthalein before adding the glycerophosphate, et cetera.—Giorn. farm. chim. 1920, v. 69, p. 113–118.

Leclère, A.: The precipitation of strychnine in mixtures of strychnine salts and alkali glycerophosphates can be prevented by the use of cane sugar which has a distinct solvent action on the alkaloid. A formula for the preparation of hypodermic solutions containing these substances is given.—J. pharm. et chim. 1920, v. 21, p. 183.

Éwe, George E.: A note calls attention to the instability of solutions of mercuric benzoate and sodium chloride due to the incompatibility of the two salts.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 253.

Linton, Arthur W.: Attention is called to the incompatibility of spirit of nitrous ether with the tannic acid contained in digitalis and the citric acid contained in syrup of lemon.—Pacific Drug Rev. 1920, v. 32, No. 11, p. 32.

Zimmermann: Veronal sodium is incompatible with ammonium bromide, ammonia being given off. Bayer & Co. report that a powdered mixture of euquinine and resorcinol blackens and resinifies in a short time.—Pharm. Post, 1919, p. 766, through Schweiz. Apoth.-Ztg. 1920, v. 58, p. 398.

6. EXTRACTION.

Beringer, Geo. M.: A presentation of evidence to show that Louis Diehl was really the originator of the tall narrow percolator, commonly known as the Oldberg percolator.—Am. J. Pharm. 1920, v. 92, p. 796–799.

Lloyd, J. U.: U. S. patent No. 1,332,908 describes an apparatus especially adapted to the making of pharmaceutical preparations of resin-containing drugs by the use of alcohol.—Chem. Abstr. 1920, v. 14, p. 1239.

Couch, James F.: An historical review dealing with the development of the process of percolation. An extensive bibliography is appended.—Am. J. Pharm. 1920, v. 92, p. 770–796, 853–881.

7. STERILIZATION.

Linton, A. W.: A discussion of means for overcoming indifference concerning sterilization in dispensing.—J. Am. Pharm. Assoc. 1920, v. 9, p. 589–593.

Stich: Attention is called to the fact that neither the Spanish nor the British pharmacopœias definitely require the sterilization of any of the official preparations.—Pharm. Ztg. 1920, v. 65, p. 237–238.

Stich: Only one preparation official in the Russian pharmacopœia is required to be sterilized, namely, Solutio Morphii hydrochlorici sterilisata.—Pharm. Ztg. 1920, v. 65, p. 61.

Anon: Directions for the sterilization of solutions intended for hypodermic injection are given under the following headings: Substances sterizable in the autoclave at 115° C. for 20 minutes; substances sterilizable at 100°; substances to be heated 4 or 5 times at 60° to 70° C.; substances to be filtered through the Chamberlain filter; substances requiring aseptic preparation.—L'Union Pharm., through Merck's Report, 1920, v. 29, p. 9.

Linton, A. W.: Notes on the sterilization of solutions of hexamethylenamine for hypodermic injection.—Pacific Drug Rev. 1920, v. 32, No. 3, p. 30.

Fairhall, Lawrence T., and Bates, Paul M.: Notes on sterilization of oils by means of ultra violent rays. The method is found to be effective in sterilizing oils such as olive, cottonseed, and almond oils with short periods of exposure.—J. Bact. 1920, v. 5, p. 49–66.

Perry, Margaret C., and Beal, Geo. D.: An investigation to determine the quantities of preservatives necessary to inhibit and prevent alcoholic fermentation and the growth of molds in food products.—J. Ind. & Eng. Chem. 1920, v. 12, p. 253–255.

Gershenfeld, Louis: A review of the 2nd edition of a volume by Albert Schneider entitled *Pharmaceutical Bacteriology*.—Am. J. Pharm. 1920, v. 92, p. 684–686.

8. FORMS OF ADMINISTRATION.

White, Robert C.: The manufacture of soft gelatin capsules is described in detail.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 282–289.

O'Connor, D. Charles: Methods are described for the filling and dispensing of capsules and konseals.—Spatula, 1920, v. 26, p. 129–132.

Nonhebel, G. K. A.: Notes on the sealing of gelatin capsules.—Pharm. Weekblad, 1920, v. 57, p. 179–181.

White, Robert C.: A descriptive article dealing with the manufacture of tablets.—J. Am. Pharm. Assoc. 1920, v. 9, p. 788–800.

von Hagen, T.: An account of experiments on the behavior of pure powdered inorganic substances when compressed into tablets, the object being to determine how the hardness, form, and strength of the tablet are influenced by the properties of the original material, such as its hardness, melting point, crystalline form, fineness of powder, et cetera.—Z. Elektrochem. 1919, v. 25, p. 375, through J. Soc. Chem. Ind. 1920, v. 39, p. 189a.

Harrisson, Joseph W. E., and Ehmann, K. F.: Data showing the degree of accuracy of dispensing tablets are presented. Tablets of strychnine sulphate and mercuric chloride were analyzed and taken as examples. The general run of samples examined contained very near the stated weight of active ingredient, although one lot was deficient to the extent of 15.5 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 518–519.

Jones, A. J.: Analytical data relative to the assay of mercuric potassium iodide tablets are presented. The methods employed for the assay of mercury and iodine are described in detail.—Chem. & Drug. 1920, v. 92, No. 16, p. 69–70.

Beyer, O.: A report of an examination of saccharin-bicarbonate tablets to determine the changes in composition which take place on keeping. The examination of a series of tablets of uniform quality showed, among other things, a loss of carbon dioxide when stored for periods varying from 24 days to 12 months. The amount of free saccharin diminished from 10 per cent after 3 months to 0.77 per cent at the end of 12 months.—Chem.-Ztg. 1919, v. 43, p. 751.

Phillips, G.: To prevent accidental poisoning, it is recommended that poisonous tablets be coated with a mixture of equal parts of candelilla wax and paraffin, melting point 56° C.—Modern Med. 1920, v. 2, p. 155, through J. Am. M. Assoc. 1920, v. 74, p. 829.

Lloyd, John Uri: A short historical account of the origin of the Chapman suppository molds.—J. Am. Pharm. Assoc. 1920, v. 9, p. 595–596.

Mayo, Caswell: An illustrated description of a simple device for making suppositories of cacao butter.—J. Am. Pharm. Assoc. 1920, v. 9, p. 593–594.

Scholar, Abel: The directions given in the Ph. Brit. with respect to the evaporation of the fluidextract of belladonna in the preparation of belladonna suppositories are stated to be impracticable. The fluidextract should not be evaporated, but incorporated directly with the cacao butter—the small amount of alcohol present has no effect on the physical conditions of the suppositories nor will it cause discomfort to the patient.—Chem. & Drug. 1920, v. 92, p. 419.

II. INTERNATIONAL STANDARDS.

1. THE EVOLUTION OF UNIFORMITY IN PHARMACOPŒIAL STANDARDS AND STANDARDS FOR POTENT MEDICAMENTS.

STANDARDS AND TESTS.

Committee on U. S. P. Philadelphia Coll. Pharm.: While approving of the principle of International standards for potent drugs and medicinal preparations, it is believed that the standards of the Brussels Conference of 1902 should receive careful revision, and that another International Conference should be convened for determining proper international standards at this time.—Am. J. Pharm. 1920, v. 92, p. 548.

2. FOREIGN PHARMACOPŒIAS.

Anon.: At the Scandinavian Pharmaceutical Conference held in Stockholm, Sweden, September 10 and 11, a resolution was passed in favor of adopting measures to bring the pharmacopœias of Norway, Denmark, and Sweden into closer agreement.—Chem. & Drug. 1920, v. 93, p. 1327.

Anon.: A book review calls attention to the Pharmacopœia of the London Hospital compiled by F. A. Hocking under the direction of the committee appointed by the London Hospital Medical Council.—Pharm. J. 1920, v. 104, p. 341.

Anon.: A book review calls attention to the sixth edition of the *Pharmacopœia of the Queen's Hospital for Children* prepared by a committee of the medical staff of the hospital. The book contains a total of seventy-six pages, thirty-seven of which are devoted to strictly pharmacopœial matter, the monographs being arranged under such headings as Balnea, Emulsions, Gargarismata, Guttae, Glycerina, Injectiones, Linctus, Linimenta, Lotiones, Misturae, etc.—Pharm. J. 1920, v. 105, p. 441.

Schelenz, Hermann: A review of a volume, by A. Falck, entitled *Die Arzneibücher*. The volume is stated to be a comparative review of the existing pharmacopœias.—Pharm. Zentralh. 1920, v. 61, p. 505–506.

1. BELGIAN.

The revision of the Belgian pharmacopœia is carried out by a permanent commission appointed by royal decree. The president and secretary are appointed by the King. The following are the members of the commission as constituted at present: F. Ranwez, professor, University of Louvain, president; W. Dulière, chief inspector of pharmacies, Namur, vice president; F. DeMyttenaere, D. Sc., inspector of pharmacies, Hal, secretary; G. Bruylants, D. Sc., professor, University of Louvain; Mr. Craps, pharmacist, member of the medical commission, Molenbeek; Mr. Hairs, pharmacist, professor, University of Liége; J. Heymans, M. D., professor, University of Gand; Mr. Ide, M. D., professor, University of Louvain; V. Jacques, M. D., professor, University of Brussels.

Schamelhout, A.: The view is expressed that the botanical part of the Belgian Pharmacopœa should be further developed in the new edition and that both the macroscopic and microscopic characteristics of powdered drugs should be stated. It is also hoped that the recommendations of the Tenth International Congress of Pharmacy, held at Brussels in 1910, will be given consideration by the commission for revision.—J. pharm. Belg. 1920, v. 2, p. 272–274.

2. BRITISH.

The British Pharmacopœia is revised by a committee appointed by the General Medical Council. Active revision is not being carried on at the present time and it is probable that another five years will elapse before a new edition will appear. The personnel of the present committee is as follows: Sir Donald MacAllister, K. C. B., M. D., chairman; Nestor Tirard, secretary; Sir Norman Moore, Bart., M. D.; Richard Caton, Esq., C. B. E., M. D.; Prof. F. G. Hopkins, M. B., D. Sc.; Sir S. Russell-Wells, M. D.; Matthew Hay, Esq., M. D.; Norman Walker, Esq., M. D.; Leonard Kidd, Esq., M. D.; Sir John Moore, M. D.

Anon.: In a report of the pharmacopœia committee of the General Medical Council of Great Britain a list of corrections made in the fourth issue of the Ph. Brit. 1914 is given. It is stated that the total number of British pharmacopœias sold since the date of publication is 36,852.—Chem. & Drug. 1920, v. 92, p. 798.

Anon.: The opinion is expressed that the British Pharmacopœia will adopt again the words "cubic centimeter" in place of "mil" as has been done by the revision committee of the U. S. P.—Brit. & Col. Pharm. 1920, v. 73, p. 212.

Thomson, J. L.: A criticism of the definition for solubility given in the 1914 edition of the Ph. Brit.—Pharm. J. 1920, v. 104, p. 7.

Bennett, C. T.: A review of the seventeenth edition of *The Extra Pharmacopœia* by W. Wynn Westcott states that the work contains information on every drug and chemical used in medicine.—J. Soc. Chem. Ind. 1920, v. 39, p. 349R–350R.

3. CZECHOSLOVAKIAN.

Anon.: A note on the progress which is being made in preparing the first national pharmacopœia of Czechoslovakia. It is probable that the work may be issued before the close of the year.—Chem. & Drug. 1920, v. 93, p. 1099.

4. DANISH.

Matters pertaining to the revision of the Danish Pharmacopœia are handled by "Den permanente Farmakopoe-Kommission," Norrevoldgade 16, Copenhagen. This commission is appointed by the State, and is composed of the following members: Prof. H. C. J. Gram, M. D., president; Army Surgeon H. Arendrup, M. D., secretary: Prof. J. C. Bock, M. D.; Prof. A. Fløystrup, M. D.; Prof. J. Bille Gram; Prof. A. C. Christensen.

5. DUTCH.

The Netherlands Pharmacopœia is revised by a permanent commission, which was appointed by the Queen in 1899. The members of this commission, as constituted at present, are: Dr. L. van Itallie, professor at the University at Leyden, president; Dr. J. S. Meulenhoff, pharmacist, Zwolle, secretary; Dr. W. Nolen, professor at the University of Leyden; Dr. L. E. Goester, public health department at The Hague; Dr. E. Verschaffelt, professor at the University of Amsterdam; W. I. de Maar, manager of the Royal Pharmaceutic Trading Co., Amsterdam; E. J. van Itallie, military pharmacist, Amsterdam; Dr. P. van Romburgh, professor at the University of Utrecht; Dr. M. Schoorl, professor at the University of Utrecht; Dr. H. Zeehuizen, ex-military surgeon, Utrecht; Dr. R. Magnus, professor at the University of Utrecht; Dr. H. L. Visser, pharmacist, Nÿmegen; Dr. L. M. van den Berg, pharmacist, Groningen.

6. FINNISH.

The last revision of the pharmacopœia of Finland was carried out by a committee of 11 members, appointed by the board of health. The last revised edition (fifth edition) appeared in 1914. At present the book is not undergoing revision and the committee has been disbanded.

Anon.: A review of the fifth edition of the Finnish Pharmacopœia, which became a legal standard for Finland in January, 1915. The more important changes in this work are enumerated and discussed.—Chem. & Drug. 1920, v. 92, p. 148–149; see also Pharm. J. 1920, v. 104, p. 353.

7. FRENCH.

The French Pharmacopœia is revised by a commission appointed by the Minister of Public Instruction. The personnel of the new commission, as shown by the decree issued November 5, 1918, is as follows: M. Coville, director of higher education, president; M. Roger, dean of the faculty of medicine of the University of Paris, vice president; M. Guignard, professor at the school of pharmacy of the University of Paris, vice president; M. Baud, chief of the first bureau of the department of higher education, secretary; M. Bourquelot, professor at the school of pharmacy of the University of Paris; M. Breteau, chief pharmacist of the army; M. Buchet, director of the central pharmacy of France; M. Carnot, professor of the faculty of medicine of the University of Paris; M. Desgrez, professor of the faculty of medicine of the University of Paris; M. Gautier, director of the school of pharmacy of the University of Paris; M. Grimbert, professor at the school of pharmacy of the University of Paris; M. Lafay, pharmacist, Paris; M. Libeau, professor at the school of pharmacy of the University of Paris; M. Leger, pharmacist in chief of the hospitals of Paris; M. Loiseau, pharmacist, Paris; M. Michel, pharmacist, Paris; M. Moren, professor at the College of France; M. Nicolas, professor at the Veterinary School of Alfort; M. Perrot, professor at the school of pharmacy of the University of Paris; M. Emile Roux, director of the Pasteur Institute; M. Eugène Roux, director of the scientific and antiadulteration services of the Ministry of Agriculture; the president of the Association of Pharmacists of France; the general secretary of the Association of Pharmacists of France.

Subsequent appointments: Dr. Desesquelle, member of the Therapeutic Society; M. Fourneau, chief of the laboratory of chemotherapy of the Pasteur Institute; M. Pouchet, professor of pharmacology and materia medica of the faculty of medicine of the University of Paris; Dr. Rénon, fellow of the faculty of medicine of the University of Paris; M. Richaud, fellow of the faculty of medicine of the University of Paris; M. Widal (Fernand), member of the Academy of Medicine and of the Superior Council of Public Hygiene of France.

Anon.: A review of the supplement to the French Codex issued a few days before April 1. The supplement is a volume of 100 pages. Twelve new items have been included and 186 items formerly official have been deleted or modified to a varying degree.—Chem. & Drug. 1920, v. 92, p. 455–456; see also Pharm. J. 1920, v. 105, p. 301–302; G. P. Forrester, Schweiz. Apoth.-Ztg. 1920, v. 58, p. 677–680; A. Schamelhout, J. pharm. Belg. 1920, v. 2, p. 645–647, 666–668, 693–695, 709–711, 733–735, 749–751, 769–770, 785–786.

Fleury, E.: Comments on some of the items official in the French Pharmacopœia, with special reference to botanical nomenclature and classification.—J. pharm. et chim. 1920, v. 22, p. 422–428.

Désesquelle, E.: The items which were given official recognition in the recent appendix to the Ph. Fr. are enumerated and a list is given of 118 articles which are considered to be of sufficient importance to merit inclusion in the next edition of the Ph. Fr.—Bull. gén. Therap. 1919, v. 86, p. 826.

Désesquelle: The syrups of belladonna, aconite and digitalis of the Ph. Fr. are thought to be too potent. It is contended that no syrup should contain in 20 grams a dose of a poisonous tincture in excess of the official maximum adult dose for a single administration.—J. pharm. et chim. 1920, v. 21, p. 71.

8. GERMAN.

The revision of the German Pharmacopœia is entrusted to a special committee of the sanitary council. Active work on the revision of the German Pharmacopœia is now under way. The appointment of the following to assist the council in this work is announced: Prof. H. Beckurts, Braunschweig; Prof. J. Gadamer, Berlin; Prof. E. Gilg, Berlin; Prof. A. Heffter, Berlin; Prof. Th. Paul, Munich; Prof. W. Straub, Freiburg; Prof. H. Thoms, Berlin.

Anon.: A discussion of the Ph. Germ. requirements for the following items: Liquefied phenol, colloidal silver, benzoin, camphor, yellow wax, spermaceti, oleoresin of aspidium, fluidextracts, senna, exsiccated sodium carbonate, sodium salicylate, oil of theobroma, cod liver oil, olive oil, rhubarb, strophanthus, syrup of ferrous iodide, styrax and tincture of opium.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 192–216.

Tunmann, O.: A number of changes and additions are suggested for the new edition of the Ph. Germ.—Apoth.-Ztg. 1918, v. 33, Nos. 56–59, through Pharm. Zentralh. 1920, v. 61, p. 84–86, 103–105; see also Erich Funk, Apoth.-Ztg. 1920, v. 35, p. 61; O. Linde, ibid. p. 440–442, 450–452, 464–465, and 474–475.

Heiduschka and Schmitt: Changes are suggested for some of the wines and wine-containing preparations of the German Pharmacopœia.—Apoth.-Ztg. 1920, v. 35, p. 109–110.

Mossler, Gustav: Suggestions for the new edition of the Ph. Germ. Improvements in methods for testing for other cinchona alkaloids in quinine salts are discussed. Analytical data obtained in testing a number of samples are presented.—Pharm. Monatsh. 1920, v. 1, p. 2–7, 17–22.

Schmatolla, O.: A criticism of the Ph. Germ. tests for Liquor Cresoli saponatus.—Pharm. Ztg. 1920, v. 65, p. 620.

9. GREEK.

The Pharmacopœia of Greece is now undergoing its second revision. The work is being done by a commission of 22 members appointed by the Minister of the Interior in 1919. The personnel of this commission is as follows:

Medical members: C. Sava, president of the board of health, professor of public health and microbiology, University of Athens; P. Manousos, vice president of the board of health, Chief of Army Medical Corps; M. Kallikounis, member extraordinary of the board of health, professor of pharmacology, University of Athens; Ch. Malandrinos, member of the board of health, professor, University of Athens; M. Sakorafos, member of the board of health, professor, University of Athens; S. Livieratos, member of the board of health, professor medical clinic, University of Athens; J. Georgiades, member of the board of health, professor of toxicology and medical jurisprudence, University of Athens; B. Bensi, professor of special nosology, University of Athens; B. Patrikiou, secretary of the board of health; S. Dontas, professor extraordinary of physiology, University of Athens; Ch. Canavasoglou, member of the board of health, chief veterinary of the Army.

Chemical and pharmaceutical members: C. Louros, pharmacist, Athens; G. Mathiopoulos, member of the board of health, professor of chemistry, University of Athens; A. Vournazos, member of the board of health, professor of chemistry and chemical technology, Polytechnical College, Metsovion; Th. Stathopoulos, member of the board of health; P. Zalocostas, director of the chemical laboratory of the Ministry of Finances; T. Comninos, chemical supervisor of the chemical laboratory, University of Athens; K. Karzi, pharmacist, president of the Panhellenic Society of Pharmacy; A. Phocas, pharmacist; N. Carteraki, pharmacist; S. Valti, pharmacist; E. Emmanuel, professor of pharmaceutical chemistry, University of Athens.

10. ITALIAN.

The Italian Pharmacopœia is revised every five years. The work is done by a commission appointed by the Minister of the Interior. The present commission, which was appointed in 1914, consists of the following members: Prof. E. Paterno, Prof. V. Cervello, Prof. L. Pesci, Prof. C. Manuelli, Mr. T. Bosio, president of the Association of Pharmacists of the Province of Turin, Mr. A. Quercia, president of the Association of Pharmacists of the Province of Bari.

Oddo, Bernardo: A report of studies on the preparation and testing of the extracts prepared according to the Ph. Ital.—Boll. chim-farm. 1920, v. 59, p. 49–53, 74–77, 121–125, 145–148, 169–173, 363–366, 413–416; v. 60, p. 113–119, 145–149.

11. JAPANESE.

The Pharmacopœia of Japan is revised by a commission appointed by the Minister of Home Affairs. A revision of this work has just been completed, the fourth revised edition having been issued in 1921. The following are the names of the members of the commission which had this work in hand: Dr. N. Nagai, president, 3 Nanachome, Minamimachi, Awoyama, Tokio; Dr. K. Tanba, 253 Myogisaka, Komagome, Tokio; Dr. Y. Tahara, 93 Tsunohazu, Yodobashi, Tokio; Dr. K. Ikeguchi, 53 Minamicho, Takanawa, Tokio; Dr. S. Takahashi, 39 Honmuracho, Azabuku, Tokio; Dr. T. Niwa, 2727 Sugamo, Sugamomachi, Tokio; Dr. H. Hayashi, 15 Sanchome, Iigura, Azabu, Tokio; Dr. M. Watanabe, 12 Haraikata-machi, Ushigome, Tokio; Dr. Y. Asahina, 123 Totsuka, Totsuka-machi, Tokio: Dr. S. Isono, 82 Genbei, Totsuka-machi, Tokio; Dr. S. Kimura, 1 Kasumicho, Azabuku, Tokio; Dr. T. Honda, 24 Gochome, Hirakawacho, Kojimachi, Tokio; Dr. K. Miura, 15 Fukuro-machi, Surugadai, Tokio; Dr. T. Tsuruda, 890 Shinamachi-ura, Sendagaya, Tokio; Dr. T. Yamada, 11 Haraikata-machi, Ushigome, Tokio; Dr. A. Uno, 14 Ichome, Yumicho, Hongo, Tokio; Dr. K. Nishizaki, 12 Haramachi, Koishikawa, Tokio; Dr. M. Takahashi, 17 Nakasarugakucho Kanda, Tokio; Dr. K. Shibata, 1 Ichome, Kobinata Daimachi, Koishikawa, Tokio.

12. NORWEGIAN.

The Norwegian Pharmacopœia is revised by a permanent pharmacopœial commission consisting of six members appointed by the King. The book is not being revised at the present time and it is not known when the work of getting out a new edition will be begun. The following are the members of the commission as constituted at present: E. Poulsson, M. D., professor of pharmacology, University of Christiania, chairman; S. Laache, M. D., professor of internal medicine, University of Christiania; P. F. Holst, M. D., professor of internal medicine, University of Christiania; E. Sissener, D. Sc., apothecary, Christiania; K. F. Strom, D. Sc., apothecary, Christiania; G. Rustung, D. Sc., apothecary, Christiania.

Anon.: A book review of the Norwegian Pharmacopœia enumerates the important changes which have resulted from the revision of this work.—Chem. & Drug. 1920, v. 92, p. 146–148.

13. POLISH.

Anon.: A special commission has been appointed by the Minister of Health of Poland to elaborate a pharmacopœia containing the formulas used by the medico-pharmaceutic members of the mutual relief societies.—J. pharm. Belg. 1920, v. 2, p. 16.

14. SWEDISH.

The Swedish Pharmacopœia is revised by a permanent committee, "Svenska Farmakopekommitten," c/o Kungl. Medicinal styrelsen, Stockholm. The work of getting out a new edition of the pharmacopœia is at present under way, having been begun in April, 1920. The following are the members of the committee as constituted at present: E. Sederholm, M. D., director of the Royal Swedish Board of Health, Stockholm, chairman; H. G. O. Enell, apothecary, Stockholm; K. O. H. von Friedrichs, M. A., director *ad interim* of the State Pharmaceutical Laboratory, Stockholm; P. R. Westling, Ph. D., professor of botany and pharmacognosy at the Pharmaceutical College, Stockholm; J. A. Sjoqvist, M. D., professor of medical chemistry at the Royal Caroline Medico-Surgical College, Stockholm; P. A. I. Hedenius, M. D., medical superintendent of Sabbatsberg's Hospital, Stockholm; K. A. Hj. Dahlstrom, professor of medicine at the Royal Veterinary College, Stockholm.

Drake, Gustaf: An article discussing the influence of Carl von Linné on the first edition of the Swedish Pharmacopœia.—Svensk Farm. Tidskr. 1920, v. 24, p. 172–178.

15. SWISS.

The Pharmacopœia of Switzerland is revised by the Swiss Pharmacopœial Commission which was created by a Federal decree March 17, 1902. The members of this commission are appointed by the Federal Council. The project of getting out the fifth edition of this work is now under consideration, although the members of the commission for revision have not yet been appointed.

III. COMMENTS ON OFFICIAL ARTICLES.

ABSINTHIUM, N. F.

Schamelhout, A.: A tentative monograph on absinthium proposed for introduction into the Belgian National Formulary.—J. pharm. Belg. 1920, v. 2, p. 86.

ACACIA.

Rusby, H. H.: The plant yielding acacia should be referred to the family *Mimosaceae*.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Ridgway, J. A.: Gum arabic is discussed under the headings "Collection," "Marketing," and "Chemical characteristics." Four grades of the gum are described. That used for pharmaceutical purposes is stated to be sun-bleached.—Canadian Chem. J. 1920, v. 4, p. 330–334.

Greenish, Henry G.: A short illustrated account of the production of gum acacia.—Pharm. J. 1920, v. 105, p. 265–266.

Perrot, Em.: Notes on the production of gum acacia in Anglo-Egyptian Sudan.—Bull. sc. pharmacol. 1920, v. 27 p. 465–474; Compt. rend. acad. sc. 1920, v. 171, p. 258–260.

Greenish, Henry G.: Comments on the report of the French Commission which undertook to study the production of gums in Sudan. These comments are limited to the production of gum acacia.—Pharm. J. 1920, v. 105, p. 488–489.

Ballard, C. W.: Notes on the identification of acacia gum by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

Waters and Tuttle: A method is described for the qualitative and quantitative estimation of acacia.—Chem. Zentralbl. 1920, v. 91, p. 226.

Enrico, Peiro: A note on the use of gum arabic in the manufacture of pharmaceutical preparations. Practical directions are given for the preparation of mucilage of acacia and oil emulsions.—Boll. chim.-Farm. 1919, v. 58, p. 433–435.

ACETANILIDUM.

Blair, Thomas S.: It is suggested that the average dose of acetanilid given in the U. S. P. be reduced from 3 grains to 1½ grains.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Ellinger, Phillipp: From experiments, it is concluded that the formation of methemoglobin from hemoglobin by action of acetanilid depends on the intermediate formation of acetylphenylhydroxylamine from the acetanilid by contact with animal tissue. This, like all hydroxylamines, acts as a strong hemoglobin builder.—Ztschr. physiol. Chem. 1920, v. 111, p. 86–125.

Macht, David I.: It is found by tests on nerve preparations of the frog that plain acetanilid solutions paralyze and kill the sciatic nerve more quickly than solutions of acetanilid containing sodium bicarbonate. The slower toxic action of the combination would, therefore, render the drug less poisonous than if acetanilid were injected alone.—Proc. Soc. Exper. Biol. & Med. 1919, v. 17, p. 44–45.

Macht, David I., et al.: A study of the effects of some antipyretics on the acuity of hearing. Acetanilid, sodium salicylate, acetylsalicylic acid and phenylsalicylate decrease the threshold of hearing, while acetphenetidine, antipyrine, pyramidone and certain other drugs increase it.—J. Pharmacol. & Exper. Therap. 1920. v. 15, p. 149–165.

Anon.: A report of a fatal case of poisoning following the taking of a headache powder containing 6.3 grains of acetanilid.—Pharm. J. 1920, v. 104, No. 2958, p. 18.

ACETONUM.

Gane, E. H.: It is suggested that acetone be deleted from the U. S. P.—Am. Druggist. 1920. v. 68. No. 5. p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Schamelhout, A.: A monograph on acetone proposed for introduction into the Belgian National Formulary.—J. pharm. Belg. 1920, v. 2, p. 205–206.

Duclaux, J., and Lanzenberg, A.: The purification of acetone by means of carbon disulphide is described. The latter unites with acetone, giving a mixture which boils at 39° C. With the exception of methylal and methyl alcohol, none of the other impurities in acetone combine with carbon disulphide.—Bull. soc. chim. France. 1920. v. 27, p. 779–782.

Paranjpé, G. R.: Using the statical method, the vapor pressure of acetone is computed over the temperature range $-50°$ to $+15°$ C.—J. Indian Inst. Sci. 1918. v. 2. p. 47–58. through Chem. Abstr. 1920, v. 14, p. 3344.

Pittarelli, Emilio: The detection of acetone by degradation to derivatives of formic acid is described.—Policlinico. 1920, v. 27. p. 1047–1049.

Wolff, M.: A number of tests for determining the purity of acetone are described.—Chem. Umschau. 1920. v. 27, p. 183.

Goodwin, Leo Frank: An investigation of the Messinger method for the analysis of acetone. The method was found to give accurate and concordant results under proper conditions.—J. Am. Chem. Soc. 1920, v. 42, p. 39–45.

Palmer, Dorothy M.: The use of the refractometer for the determination of small percentages of isopropyl alcohol in acetone is suggested. A table is given showing the refractive indices for 18 concentrations of isopropyl alcohol.—Analyst (The). London. 1920. v. 45, p. 302.

ACIDUM ACETICUM.

Anon.: A minimum content of 98 per cent of pure acid in acetic acid is now required by the new supplement to the Ph. Fr.—Chem. & Drug. 1920, v. 92, p. 456.

Mayrhofer. Adolf: Microchemical methods for determining the identity and purity of acetic acid and its metallic salts are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920. v. 58. p. 229–230.

Pickett, Oscar A.: A modification of the phosphoric acid method for the determination of acetic acid in acids is described. The important change consists in distilling over the acetic acid by a current of xylene vapor instead of water vapor as in the old process.—J. Ind. & Eng. Chem. 1920, v. 12, p. 570–571.

Kolthoff, I. M.: Data relative to the iodometric determination of acetic acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 63.

Polinski, M.: A method for the detection of formic acid in acetic acid is based on the fact that formic acid is easily oxidized by boiling with a mixture of sulphuric and chromic acids, whereas acetic acid is not attacked.—Chem.-Analyst, 1920, v. 29, p. 4.

ACIDUM ACETYLSALICYLICUM (NONOFFICIAL).

Gane, E. H.: It is suggested that acetylsalicylic acid be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hibbert, H.: U. S. patent No. 1321307 describes the purification of acetylsalicylic acid by solution of the impure material in a heated solvent containing $C_2H_4Cl_2$ and subsequent cooling to effect crystallization.—Chem. Abstr. 1920, v. 14, p. 186.

Anon.: A review of the work of G. Cappelli of the chemical laboratory of the Italian Inspectorate of Military Hygiene on the crystallization and melting point of acetylsalicylic acid.—Chem. & Drug. 1920, v. 93, p. 1274.

Ahrens, C.: Notes on the melting point of acetylsalicyclic acid. Attention is directed to the effect of various solvents used in crystallization, and it is shown that the acid adsorbs 1.763 per cent of its weight of moisture, which depresses the melting point about 4° C.—Pharm. Ztg. 1920, v. 65, p. 800–801.

Auerbach: According to observations of the author, acetylsalicylic acid will finally melt if heated for 25 or 45 minutes at 124° C. or 115° C., respectively.—Pharm. Ztg. 1920, v. 65, p. 509.

Becker, Erwin A.: The solution of acetylsalicylic acid in water may be effected by the addition of potassium citrate. For every gram of acetylsalicylic acid prescribed in a mixture, 4 grams of potassium citrate are required.—J. Am. Pharm. Assoc. 1920, v. 9, p. 520.

Grau, Carlos A.: Notes on the testing of aspirin.—Revista dei Centro estudiantes de quimica y farmacia de La Plata, Sept. 1919, p. 207, through Répert. pharm. 1918, v. 29, p. 240-242.

Smith, A. M.: The presence of free salicylic acid in acetylsalicylic acid is masked by the presence of certain materials. The substances capable of producing such interference are certain strong organic acids, as tartaric and citric acids. The latter when present in the proportion of 1 per cent is sufficient to mask about 0.2 per cent of free salicylic acid.—Analyst (The), London, 1920, v. 45, p. 412; Pharm. J. 1920, v. 105, p. 90–94.

Ramsay, John H.: Of 11 samples of sodium acetylsalicylate examined, only 3 were free from the odor of acetic acid and contained no free salicyclic acid. It is thought that 5 to 10 parts of free salicylic acid per million might be permissible. The melting point should not be below 135° C.—Pharm. J. 1920, v. 104, p. 7–8.

Éwe, George E.: Several lots of acetylsalicyclic acid examined were rejected because of sour odor and taste due to acetic acid left in the product during its manufacture.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

Engelhardt, H.: Two shipments of acetylsalicylic acid examined contained an excess of free acid when determined by the test given in the *New and Non-Official Remedies.*—Proc. Maryland Pharm. Assoc. 1920, p. 24.

Anon.: Report of committee on acetylsalicylic acid. It is stated that some of the brands of acetylsalicylic acid tablets on the market contain traces of free acetic and salicylic acids. This is thought to be due to the fact that acetylsalicylic acid is very easily decomposed.—Proc. Am. Drug Mfg. Assoc. 1920, p. 216–217.

Holt, Thomas: Of 23 samples of aspirin tablets examined, 1 was adulterated.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Roberts, J. G.: Five of 39 lots of acetylsalicylic acid examined were rejected.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

Pitini, A.: An investigation of the fate of aspirin in the animal organism showed that a part of it is absorbed before undergoing hydrolysis.—Arch. farm. sper. 1920, v. 29, p. 113–118.

Widal, Fermand, and Valley-Radot, Pasteur: A case of typical alimentary anaphylaxis. Acetylsalicylic acid was desensitized by giving the drug in increasing doses over a period of six weeks.—Presse médicale, 1920, v. 28, p. 93.

Hearne, Ethelbert: The author reports that he was poisoned by a 10-grain dose of aspirin. The symptoms of poisoning are described in detail.—Brit. M. J. 1920, v. 2, p. 418.

Anon.: A report of a case of aspirin poisoning in a sailor due to the ingestion of only 0.15 gram. A case of idiosyncrasy.—Pharm J. 1920, v. 105, p. 256.

ACIDUM BENZOICUM.

Thompson, W. P.: English patent No. 143392 describes the manufacture of benzoic acid by the oxidation of toluene. Illustrated.—Rev. prod. chim. 1920, v. 23, p. 483.

Blair, Thomas S.: It is suggested that only certain of the processes for making synthetic benzoic acid and benzoates be approved by the U. S. P. Revision Committee and that products made from the urine of herbivorous animals be excluded. There is much inferior benzoic acid on the market, and depression has been observed to follow the use of benzoates of uncertain synthetic type.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Phillips, Max, and Gibbs, H. D.: A description of the purification of benzoic acid by fractional condensation. Illustrated.—J. Ind. & Eng. Chem. 1920, v. 12, p. 277–279.

Dohme, A. R. L.: It is suggested that a more definite test for distinguishing between the natural and synthetic benzoic acid should be given in the U. S. P. The chlorine test which is usually applied for distinguishing between the natural and the synthetic acid is not reliable, because the process for manufacturing the synthetic acid has been so perfected that the acid can be made free from chlorinated products.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Guerbet, M.: A method for the identification of benzoic acid is based on its diazotisation. The method is also applicable to the toxicological detection of atropine, cocaine, and stovaine.—Compt. rend. acad. sc. 1920, v. 171, p. 40–41.

Mayrhofer, Adolf: Microchemical methods for testing the identity and purity of benzoic acid are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 235–236.

H. M.: It is recommended that the test for empyreumatic substances in benzoic acid be made more distinct in the new edition of the Ph. Germ.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

Linde, O.: In the Ph. Germ. test for cinnamic acid in benzoic acid, the odor is described as resembling that of oil of bitter almonds. It would be more correct to compare it with benzaldehyde, which is the odoriferous compound formed.—Apoth.-Ztg. 1920, v. 35, p. 441.

Kolthoff, I. M.: Data relative to the iodometric determination of benzoic acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 64–65.

Sidgwick, Nevil V.: A report of experiments on the volatility of benzoic acid and its derivatives in steam. The apparatus for making this determination is described.—J. Chem. Soc. Lond. 1920, v. 117, p. 396-406.

van Itallie, E. I.: Notes on the quantitative determination of benzoic acid in fats.—Pharm. Weekblad, 1920, v. 57, p. 688-691.

Schowater, E.: A description of a method for the separation of saccharin and benzoic acid in foods. A quantitative separation is effected by carbon tetrachloride, in which saccharin is insoluble.—

Ztschr. Unters. Nahr.-u. Genussm. 1919, v. 38, p. 185: Chem.-Ztg. 1920, v. 44, p. 138.

Roberts, J. G.: Two lots of benzoic acid were rejected, one because of its yellow color, the other because of an excess of chlorine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

ACIDUM BORICUM.

Funck, Erich: It is recommended that the new Ph. Germ. prescribe tests for the presence of nitrates in boric acid since the latter, as found on the market at present, frequently contains nitrates.—Apoth.-Ztg. 1920, v. 35, p. 61.

Tiede, Erich: A study of the phosphorescence of boric acid.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 2214–2216.

Böeseken, J.: An investigation of the positive influence of 1,3-diols on the conductivity of boric acid.—Rec. trav. chim. 1920, v. 39, p. 178–182, through Chem. Abstr. 1920, v. 14, p. 2472.

van Liempt, J. A. M.: An experimental study of the acidimetric determination of boric acid.—Ztschr. anorg. Chem. 1920, v. 111, No. 2, p. 151–166.

ACIDUM CITRICUM.

Anon.: An account of the citric acid industry in the United States. Illustrated.—Chem. Age. 1920, v. 28, p. 430–433.

Mayrhofer, Adolf: Microchemical methods for the testing of citric acid are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 247–248 and 254.

Kolthoff, I. M.: Data relative to the iodometric determination of citric acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 59–60.

Éwe, George E.: Notes on Denigès' test for citric acid. This test is found to be very useful in the detection of citric acid for the reason that tartaric acid, which is the acid most commonly associated with citric acid in mixtures, does not react with this test. Analytical data are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1179–1180.

ACID, DIETHYLBARBITURIC (NONOFFICIAL).

Gane, E. H.: It is suggested that diethylbarbituric acid be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Anon.: The new supplement to the Ph. Fr. gives the melting point of diethylbarbituric acid as 190 to 191° C. The ash on incineration should not exceed 0.1 per cent.—Chem. & Drug. 1920, v. 92, p. 455.

ACIDUM FORMICUM, N. F.

Anon.: An article describing the production of formic acid in the United States.—Chem. Age, 1920, v. 2, p. 453–454.

Kolthoff, I. M.: Data relative to the iodometric determination of formic acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 63–64.

ACIDUM GALLICUM.

Gane, E. H.: It is suggested that gallic acid be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Gallic acid should be deleted from the U. S. P., as it is not often employed. Tannic acid is superior to gallic acid for both external and internal use.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

ACIDUM HYDRIODICUM DILUTUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: In the preparation of diluted hydriodic acid the heating of the solution of potassium salts seems to be unnecessary. The directions to heat should be omitted.—Am. J. Pharm. 1920, v. 92, p. 556.

Dohme, A. R. L.: It is suggested that the test for total solids in dilute hydriodic acid should be revised. The residue left after evaporating and incinerating 5 cubic centimeters of the acid is not potassium carbonate as is usually accepted, but is potassium iodide, which volatilizes when too high heat is applied. Therefore it should be stated that the heating be carried out only at dull redness.—J. Am. Pharm. Assoc. 1920, v. 9, p. 229.

Engelhardt, H.: One shipment of hydriodic acid examined contained free iodine.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

ACIDUM HYDROBROMICUM DILUTUM.

Schamelhout, A.: A tentative monograph on dilute hydrobromic acid, suitable for introduction into the Belgian National Formulary, is submitted.—J. pharm. Belg. 1920, v. 2, p. 248.

ACIDUM HYDROCHLORICUM.

Gibbs, H. D.: Experimental data relative to the production of hydrochloric acid from chlorine and water are presented.—J. Ind. & Eng. Chem. 1920, v. 12, p. 538–541.

Kolthoff, I. M.: Data relative to the iodometric determination of hydrochloric acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 56–57.

Woods, Chas. D.: Of 47 samples of hydrochloric acid examined 16 were not of U. S. P. quality.—Off. Insp. No. 95, Maine Agric. Exper. Sta. 1920, p. 9–11.

Bachman, Gustav: The strength of 7 samples of concentrated hydrochloric acid examined ranged from 29.4 to 38.5 per cent.—Proc. Minnesota Pharm. Assoc. 1920, p. 109.

Stratford, H.: Details are given of a case of poisoning in which three ounces of strong hydrochloric acid were taken after a heavy meal. Recovery followed.—Brit. M. J. 1920, v. 2, p. 164.

ACIDUM HYDROCHLORICUM DILUTUM.

Woods, Charles D.: Of 47 samples of diluted hydrochloric acid examined 31 were of standard strength, 7 were below standard, 4 were dangerously high, and 5 were slightly above standard.—Off. Insp. Maine Agric. Exper. Sta. 1920, No. 95, p. 9–10.

ACIDUM HYDROCYANICUM DILUTUM.

Gane, E. H.: It is suggested that diluted hydrocyanic acid be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Morris, R. L.: An investigation of methods for the determination of hydrocyanic acid. A comparison of the Ph. Brit. method with that of the U. S. P. shows that the amount of KI directed to be used by Ph. Brit. is too small. About four times the specified quantity should be used. Liebig's process as modified by Guerin is stated to give satisfactory results.—Pharm. J. 1920, v. 105, p. 83–85; Chem. & Drug. 1920, v. 93, p. 92–93.

Farr, H. V.: It is recommended that in the assay method for dilute hydrocyanic acid the material be cooled with ice, and the portion for testing be withdrawn with a pipette instead of by pouring as recommended in the U. S. P., IX. In place of the present test for hydrogen chloride, direct titration of the total mineral acid with standard alkali and methyl orange indicator is recommended. The test is described in detail.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Engelhardt, H.: It is a well-known fact that hydrocyanic acid, especially when exposed to air and light, rapidly decomposes, and this probably accounts for the deficiency in HCN of two shipments of the acid which assayed only 1.84 and 1.7 per cent of absolutely HCN as compared with the official requirement of 2 per cent.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

Anon.: A case of suicide by taking hydrocyanic acid is reported.—Chem. & Drug. 1920, v. 93, p. 37.

ACIDUM HYPOPHOSPHOROSUM.

Mitchell, Alec. D.: Hypophosphorus acid. II. A study of the reaction of hypophosphorus acid with iodine.—J. Chem. Soc. Lond. 1920, v. 117, p. 1322–1335.

ACIDUM LACTICUM.

U. S. Tariff Commission: Descriptive data relative to the production of lactic acid in the United States are given.—Chem. Age, 1920, v. 2, p. 373–375.

Mayrhofer, Adolf: Microchemical tests for the identity and purity of lactic acid are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 294–295.

Brauer, K.: A test for the identification of lactic and oxalic acids and for distinguishing them from tartaric acid is based on the color reaction which takes place on the addition of resorcinol and sulphuric acid.—Chem.-Ztg. 1920, v. 80, p. 494.

Hofmann, K. A.: A description of a method for the separation and detection of lactic acid as ferric-sodium lactate.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 2224–2226.

Kolthoff, I. M.: Data relative to the iodometric determination of lactic acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 60–61.

ACIDUM NITRICUM.

Longinescu, G. G., and Chaborski, Gabriela: A method for the identification of nitric acid depends on the formation of nitrobenzene which can be easily recognized by its odor.—Bull. Sect. Sci. Acad. Roumaine, 1920, v. 6, p. 176–178.

ACIDUM PHENYLCINCHONINICUM.

Starkenstein, E.: A report of a series of pharmacological studies of the action of atophan on frogs, mice, rabbits, dogs, and cats.—Biochem. Ztschr. 1920, v. 106, p. 172–193.

ACIDUM PHOSPHORICUM.

Schamelhout, A.: A monograph on phosphoric acid proposed for admission to the Belgian National Formulary is submitted.—J. pharm. Belg. 1920, v. 2, p. 378.

Cook, E. F., and Nichols, A. B.: The U. S. P. assay for phosphoric acid is stated to be unsatisfactory because of the varying amounts of zinc oxide which may be added, and which make up a part of the final volume from which an aliquot portion is taken for titration.

A procedure for overcoming this condition is described.—Am. J. Pharm. 1920, v. 92, p. 800–801.

Cline, H. L.: Variable results are obtained in the assay of phosphoric acid by the U. S. P. method due to the variation in the quantity of zinc oxide employed by different analysts. This difficulty is overcome by filtering the liquid after neutralization with zinc oxide and making up to a definite volume.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 298.

Pasternak, S.: Notes on the technique of the determination of phosphoric acid as barium phosphomolybdate.—Bull. soc. chim. France, 1920, v. 27, p. 564–568.

Kolthoff, I. M.: A procedure for the electrometric titration of phosphoric acid and its salts is described.—Ztschr. anorg. Chem. 1920, v. 112, p. 165–171.

Roberts, J. G.: A yellowish sample of phosphoric acid examined contained an excessive amount of heavy metals, had a normal arsenic content, and neither sulphuric nor nitric acid was present. Phosphates calculated as phosphoric acid amounted to 6.6 per cent. Its strength by titration with N/10 NaOH using methyl orange indicator was 48.44 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

ACIDUM SALICYLICUM.

Rusby, H. H.: When salicylic acid is of synthetic origin, that fact should be stated on the label, and the same thing should be done in the case of its salts.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Anon.: Tests made in the laboratory of W. J. Bush & Co. show that the purest samples of salicylic acid obtained in works practice melt at 159° or slightly above. Samples from current manufacture regularly show melting points of 158° to 158.8° C.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 207.

Eldson, G. D.: A description of a modified Wilkie method for the determination of phenol and salicylic acid in the Ph. Brit. ointments. The method requires the addition of an excess of N/10 iodine solution to a solution of the phenol or salicylic acid rendered alkaline by sodium carbonate, and the titration of the excess of iodine after acidification.—Pharm. J. 1920, v. 105, p. 86; Chem. & Drug. 1920, v. 93, p. 1066.

Kolthoff, I. M.: Data relative to the iodometric determination of salicylic acid are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 65–66.

Roberts, J. G.: Every lot of salicylic acid examined had more or less of a yellow color. Some lots were rejected on that account and others because they produced a decided pink color when used for the manufacture of sodium salicylate. One shipment was rejected because it contained an excess of carbonizable impurities.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

Kitchin, G. S.: Attention is directed to the incompatibility of salicylic acid with zinc oxide in aqueous mixtures.—Pharm. J. 1920, v. 104, p. 301.

Sejournet, M. J.: A note on the treatment of rheumatism and gout by hypodermic injections of salicylic acid.—Semana Medica. 1920, June 3, through New York M. J. 1920, v. 112, p. 691.

ACIDUM STEARICUM.

Nicolet, Ben H.: Data are presented showing the uniform condition of commercial samples of stearic acid. Attention is called to the remarkable constancy of the ratio of palmitic acid to stearic acid in these samples.—J. Ind. & Eng. Chem. 1920, v. 12, p. 677–678.

ACIDUM SULPHURICUM.

Moore: The removal of arsenic from sulphuric acid by means of hydrogen sulphide is described.—Chem. Zentralbl. 1920, v. 91, part 2, p. 588.

Scheringa, K.: To prepare arsenic-free sulphuric acid, add a sulphite and heat for some time just below the boiling point and finally electrolyze with platinum electrodes.—Pharm. Weekblad, 1920, v. 57, p. 421–422.

Sefton, L. B.: A critical discussion of the various methods employed for the estimation of nitrates and nitrites in sulphuric acid.—Chem. Trade J. 1920, v. 66, p. 755–757.

Kohr, A. A.: A description of a rapid method for the quantitative determination of arsenic in commercial sulphuric acid. The arsenious and the arsenic forms are determined separately.—J. Ind. & Eng. Chem. 1920, v. 12, p. 580–581.

Funck, Erich: It is recommended that the test for the presence of selenium in sulphuric acid be omitted from the Ph. Germ. since it is scarcely ever present in the acid as found on the market at the present time.—Apoth.-Ztg. 1920, v. 35, p. 61.

Winkler, L. W.: Gravimetric analysis. XII and XIII. Studies on the estimation of sulphuric acid.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 59–60, 159–160, 162–163.

ACIDUM SULPHURICUM AROMATICUM.

Egan, Thomas A.: A revised formula for the preparation of aromatic sulphuric acid is proposed for the new edition of the U. S. P.—Pract. Drug. 1920, v. 34, p. 476.

Dohme, A. R. L.: It is suggested that the assay process for aromatic sulphuric acid be changed as the results obtained by the U. S.

P., IX. method are too high, due to the reaction being reversible. A process similar to the one published by Penniman and Randall in the Journal of Industrial and Engineering Chemistry for October, 1919, should be adopted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Kelly, E. F., and Krantz, J. C., jr.: A modified U. S. P. process for the assay of aromatic sulphuric acid is described. Analytical data obtained in working out this modification are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 775–776.

ACIDUM SULPHURICUM DILUTUM.

Reynolds, J.: Attention is called to the value of large doses (20 to 30 minims) of dilute sulphuric acid in the treatment of boils and general staphylococcic infection.—Lancet (The), London, 1920, v. 198, p. 628.

ACIDUM TANNICUM.

Rusby, H. H.: There appears to be no good reason why the origin of tannic acid should be restricted to nutgall in the U. S. P., provided that it complies strictly with the description. Myrobalan yields an equally good product.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Baldracco: A modified method for the determination of tannin, said to be superior to the official "shaking" method, is described.—J. Soc. Leather Trades' Chem. 1919, v. 3, p. 197–198, through Chem. Abstr. 1920, v. 14, p. 1060; see also J. G. Parker, ibid.

Orimo, T.: A report on the use of alcoholic solution of tannin as a skin disinfectant in preference to tincture of iodine. The tannic acid solution is found to be less powerful than tincture of iodine, but sufficiently powerful for practical purposes.—Bull. Naval Assoc. Japan, 1919, v. 2, p. 1, through Year Book Pharm. 1920, p. 194.

Leech, Paul N.: A report of studies on the digestion of the tannin compounds used as intestinal astringents by artificial mixtures.—Rep. Chem. Lab. Am. M. Assoc. 1920, v. 13, p. 7–20.

ACIDUM TARTARICUM.

Pondal, M. L.: An account of the manufacture of tartaric acid in large quantities in Argentine. The source of the acid is the refuse from wine making.—Anales soc. quim. Argentina. 1919. v. 7. p. 304–316.

Mayrhofer, Adolf: Microchemical methods for the testing of tartaric acid are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 263–264.

Brauer, Curt: Methods for distinguishing between tartaric acid and oxalic and lactic acids are described. The methods are based on the color reactions obtained with a sulphuric acid solution of resorcinol, phloroglucinol, pyrocatechol or hydroquinone.—Chem.-Ztg. 1920, v. 44, p. 494.

Kolthoff, I. M.: Data relative to the iodometric determination of tartaric acid are presented and discussed.—Pharm. Weekblad. 1920, v. 57, p. 57–59.

ACIDUM TRICHLORACETICUM.

Schamelhout, A.: A monograph on trichloracetic acid proposed for the Belgian National Formulary.—J. pharm. Belg. 1920, v. 2, p. 156.

Gallagher, T. J.: Trichloracetic acid, applied in the pure state, is stated to be a specific for Vincent's angina.—Laryngoscope. 1918, v. 28, p. 551.

ACONITINA.

Rusby, H. H.: There seems to be no good reason why the origin of aconitine should be restricted to "Aconite" in the U. S. P., unless the definition of the latter is extended to include Japanese aconite.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

ACONITUM.

Anon.: Statistics are given on the sources of supply and on the importation of aconite for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 36–37.

American Drug Manufacturers' Association: The scientific section of the American Drug Manufacturers' Association suggests that the U. S. P., X, include the so-called Japanese aconite root, provided a study of the drug confirms our belief that it is as efficient as the present official variety of aconite root.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

Ewe, George E.: It is suggested that the standard of ether-soluble alkaloids for aconite be reduced to 0.45 per cent, as 0.5 per cent appears to be too high, and that a corresponding change be made in the physiological standard. Data for the establishment of a lower standard are submitted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 299.

Hilton, S. L.: It is suggested that the chemical assay for aconite be omitted from the U. S. P. unless a more accurate method be devised whereby the aconitine does not break down.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

Chappel, E. J., and Allport, N. L.: An improved method for the assay of aconite preparations is described. Special reference is made to the tincture and the liniment.—Pharm. J. 1920, v. 105, p. 94; Chem. & Drug. 1920, v. 93, p. 96.

Anon.: In a discussion of the assay of aconite it is stated that chemical assay is worthless with respect to serving as a criterion for therapeutic activity. The physiological method of the U. S. P. is also stated to be unsatisfactory.—Proc. Am. Drug Mfg. Assoc. 1920, p. 218–222.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the U. S. P. method for the physiologic assay of aconite.—Am. J. Pharm. 1920, v. 92, p. 646.

Pittenger, P. S.: In the report of the committee on physiologic assaying of the American Pharmaceutical Association recommendations are made for changes in the U. S. P. method for the assay of aconite.—J. Am. Pharm. Assoc. 1920, v. 9, p. 616.

Colson, H. C., Jr.: It is recommended that an impartial laboratory, e. g., the Hygienic Laboratory, prepare a standard extract, a standard fluidextract, and a standard tincture of aconite and distribute samples thereof to laboratories making physiological assays.—J. Am. Pharm. Assoc. 1920, v. 9, p. 305.

Viehoever, Arno: As a result of surveys of some of the crude drugs on the market it was observed that in a considerable number of instances spurious unofficial aconites had been substituted for aconite (*Aconitum napellus*), the chief adulterant being Japanese aconite (*Aconitum fischeri*). Some unofficial Indian aconites were also found. The substitutes do not contain aconitine, but other alkaloids.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 153.

Eli Lilly & Co.: Several shipments of aconite root examined were rejected on account of their poor physical condition, and a number of others because they did not come up to the U. S. P. alkaloidal standard. In some instances Japanese and Indian aconite were submitted for official aconite root.—Proc. N. W. D. A. 1920, p. 358.

Lampa, Robert R.: The average ether-soluble alkaloidal content of aconite found on the market is 0.45 per cent. The U. S. P. standard is 0.5 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E., and Pittenger, P. S.: One lot of aconite root labeled "Spanish" assayed 0.422 per cent of ether-soluble alkaloids, or 84 per cent of the U. S. P. standard of 0.5 per cent. A fluidextract of this lot possessed a minimum lethal dose of 0.000012 cc. per gm. of guinea pig, or 333 per cent of the U. S. P. maximum standard of "not greater than 0.00004 cc."—Proc. Pennsylvania Pharm. Assoc. 1920, p. 108.

Éwe, George E.: Of 12 samples of aconite root examined, 4 were above and 8 were below the U. S. P. standard of 0.5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

ADEPS.

Scott, J. M.: Data are given showing the effect of different feeds on the melting point of lard prepared from the experimental animals.—Bull. Florida Agric. Exper. Sta. No. 157, through Chem. Abstr. 1920, v. 14, p. 2813.

Sundberg, Thure: The method of Bömer, as the result of a critical examination, is recommended for official adoption in Sweden for the determination of tallow and hardened vegetable oils in lard.—Svensk Kem. Tidskr. 1920, v. 32, p. 5–13.

ADEPS BENZOINATUS.

van Neron, G.: A method for the preparation of benzoinated lard is described. The following are the materials used: Lard, freshly prepared, 1,000 grams; Siam benzoin, 40 grams; powdered alum, 20–30 grams.—J. pharm. Belg. 1920, v. 2, p. 354.

ADEPS LANÆ.

Frensch, H.: Notes on the production and uses of wool fat.—Seifensieder Ztg. 1920, v. 47, p. 606.

Broadgate, W. C.: U. S. patent No. 1354376 describes the preparation of lanolin by the addition of alkali peroxide to wool grease and subsequent separation by centrifuging.—J. Soc. Chem. Ind. 1920, v. 39, p. 728A.

Denis, Jos.: A short historical note dealing with the early nomenclature of lanolin.—J. pharm. Belg. 1920, v. 2, p. 194–195.

Dubose, A.: An analysis of wool fat gave cholesterol and isocholesterol 23.94 per cent, cholesterol and ceryl cerotate 21.25 per cent, saponifiable fatty acids 54.03 per cent, water 0.76 per cent. The determination of the constants of wool fat gave density 0.997, melting point 32° C., saponification number 246, iodine number 93.7, mean molecular weight 375 to 385, ash trace.—Mat. grasses, 1920, v. 12, p. 5352–5353, through Chem. Abstr. 1920, v. 14, p. 1615.

Lifschütz, I.: The results of experiments indicate that the acid portion of wool fat contains no oleic or other unsaturated fatty acid. The low iodine value previously ascribed to the "oily acid" depends on the presence of an acid formed by the oxidation of cholesterol or isocholesterol.—Ztschr. physiol. Chem. 1920, v. 110, p. 29–40.

Rohmann, Hermann: Lanolin, particularly if somewhat rancid, and perhaps due to the presence of liquid crystals, shows double refraction.—Physik. Ztschr. 1919, v. 20, p. 256–257, through Chem. Abstr. 1920, v. 14, p. 2888.

Anon.: Analytical data obtained in the examination of crude wool fat and lanolin are presented.—Chem. Umschau, 1920, v. 27, p. 54, through Pharm. Zentralh. 1920, v. 61, p. 368–369.

Éwe, George E.: The U. S. P. "alkalies and soaps" requirement for wool fat appears to be difficult to attain. It is suggested that an upper limit of 0.3 per cent ash, instead of the present 0.1 per cent, and the dropping of the requirement that the ash be not alkaline to moistened litmus paper, would not include any harmful products.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

Linde, O.: The Ph. Germ. test for acidity and alkalinity of anhydrous lanolin is criticized because phenolphthalein is specified as the indicator to be used in the titration of the ethereal solution. Cochineal is recommended for use in this case.—Apoth.-Ztg. 1920, v. 35, p. 441.

Hughes, Edward J.: Analytical data are given showing the iodine value of wool fat. It is suggested that the U. S. P. direct that "exactly" 0.800 gram of the fat be taken for examination instead of "about" 0.800 gram.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 292–294.

Éwe, George E.: Two lots of anhydrous lanolin examined were rejected as they were high in iodine number.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 113.

ADEPS LANÆ HYDROSUS.

Mueller, Bertha: It is recommended that the following formula for lanolin be made official: Liquid petrolatum, 10; distilled water, 20; and anhydrous wool fat, 70.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

ADONIS, N. F.

Schmidt, James M.: An experimental study of the pharmacological action of *Adonis vernalis L.*—Am. J. Pharm. 1920, v. 92, p. 702–714.

ÆTHER.

E. I. DuPont de Nemours & Co.: Announcement is made of a new anæsthetic which eliminates pain without loss of consciousness. It is described as a new type of highly refined ether.—Oil, Paint & Drug Rep. 1920, v. 97, No. 3, p. 28 (Section I).

Dietze, F.: Comments on the U. S. P. methods for the testing of ether.—Apoth.-Ztg. 1920, v. 41, p. 100.

Dott, D. B.: A test for the detection of peroxide in ether depends on the fact that the former reacts with mercury.—Chem. Trade J. 1920, v. 66, p. 442.

Anon.: A discussion of the effect of containers on the decomposition of ether.—Proc. Am. Drug Mfg. Assoc. 1920, p. 227–233.

ÆTHER ACETICUS, N. F.

Zimmermann, W.: Amyl acetate is reported as an impurity frequently found in acetic ether.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 44.

ÆTHYLIS CARBAMAS.

Schamelhout, A.: A monograph on ethyl carbamate proposed for introduction into the Belgian National Formulary is submitted.—J. pharm. Belg. 1920, v. 2, p. 400.

Gane, E. H.: It is suggested that ethyl carbamate be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25: J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

ÆTHYLIS CHLORIDUM.

Voll: Ethyl chloride is highly recommended for general narcosis. Detailed directions for its use are given.—Münch. med. Wchnschr. 1920, v. 67, p. 185–186.

ÆTHYLMORPHINÆ HYDROCHLORIDUM.

Thomson, James L.: The determination of water in ethyl morphine sulphate by heating in a drying oven to 115° C., or by evaporation over sulphuric acid *in vacuo*, shows that the compound contains 5 H_2O. Data relative to the melting point, solubility in water and alcohol are also given.—Pharm. J. 1920, v. 104, p. 7.

AGAR.

MacDougal, D. T., and Spoehr, H. A.: Data in regard to the swelling of agar in solutions of amino acids and related compounds are given.—Bot. Gaz. 1920, v. 70, p. 268–278.

ALCOHOL.

Anon.: The possibility of utilizing the mowra flower of India for the production of alcohol is discussed.—Bull. Imp. Inst. May, 1920, through J. Roy. Soc. Arts, 1920, v. 68, p. 444.

Desborough, A. P. H.: An article calling attention to some of the possible sources of industrial alcohol.—J. Soc. Chem. Ind. 1920, v. 39, p. 302R–303R.

French, H. R.: A brief account dealing with the sources, manufacture, and uses of ethyl and methyl alcohol.—Proc. New Jersey Pharm. Assoc. 1920, p. 55–61.

Crounse, William L.: A lecture on alcohol and its relation to science and industry.—J. Am. Pharm. Assoc. 1920, v. 9, p. 600–609.

Schaffer, C.: Descriptions are given of the iodoform reaction, Legal's oxidation method and the ethyl acetate test for ethyl alcohol.—Hospital Corps Quart. Suppl. to U. S. Naval Med. Bull. 1920, No. 14, p. 24–26.

Kunz, Rudolf: A modification for increasing the sensitiveness of Lieben's iodoform reaction is described. To 10 cc. of the liquid to be tested add 1.5 to 2 cc. of 10 per cent NaOH solution, about 0.15 gram of potassium iodide and 0.2 gram of potassium persulphate and heat to 50 or 60° C. If one drop of alcohol is present a precipitate of iodoform will form in one minute.—Ztschr. anal. Chem. 1920, v. 59, p. 302–303.

Foran, Ralph R.: A discussion of the meaning of the term "proof spirit."—Am. J. Pharm. 1920, v. 92, p. 11–13.

Richmond, H. D.: A table is given for corrections to be made on specific gravity determinations of alcohol carried out at temperatures between 10 and 25° C. and for a range of specific gravity from 0.79 to 0.99.—Analyst (The), London, 1920, v. 45, p. 222.

Kolthoff, I. M.: From experiments it is concluded that the composition of mixtures of alcohol and water can be ascertained by the determination of the electrical conductivity.—Rec. trav. chim. 1920, v. 39, p. 126–134, through Chem. Abstr. 1920, v. 14, p. 2455.

Chéneau, O.: Alcoholometric tables applicable to alcohols denatured with methyl alcohol and benzine are given.—Bull. assoc. chim. sucr. dist. 1919, v. 37, p. 213–222, through Chem. Abstr. 1920, v. 14, p. 3044.

Hilton, S. L.: It is suggested that the total solids in alcohol should not be more than 0.001 gram in 50 cubic centimeters when dried at 110° C. It is stated that the U. S. P. IX standard for total solids is too high.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

Berg, Frantz F.: The U. S. P. test for the presence of methyl alcohol in ethyl alcohol is not satisfactory, as in many cases a positive reaction is obtained when applied to alcohol of known purity. It is suggested that this may be due to the quality of the Fuchsin now on the market. The author has found samples of this chemical to contain, in one case, 85 per cent of sugar and, in another case, 50 per cent of sodium chloride.—J. Am. Pharm. Assoc. 1920, v. 9, p. 774.

Henle, F.: A new method for the detection of water in alcohol and other organic solvents is based on the property of the two anhydrides, $Al_2(C_2H_5O)_4O$ and $Al_4(C_2H_5O)_6O_3$, to form a voluminous precipitate of $Al(OH)_3$ in the presence of water.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 719–722.

Briant, L., and Harman, H. W.: Some data are given showing the loss in strength of alcohol due to evaporation. The loss of alcohol by evaporation from approximately 200 cc. of spirit, contained in bottles lightly covered with a watch glass and having an exposed area of about one square inch, amounted to 4.19 per cent when the temperature was held at 60° Fahrenheit and 7.13 per cent when the temperature was 85° Fahrenheit.—Analyst (The), London, 1920, v. 45, p. 448.

Hoepner, Karl: A description of a method for the estimation of alcohol in the presence of volatile substances, especially aldehyde and acetone.—Ztschr. Unters. Nahr. u. Genussm. 1917, v. 34, p. 453–466, through Chem. Abstr. 1920, v. 14, p. 713.

Roberts, J. G.: One shipment of alcohol was rejected because it had a distinct yellow, cloudy appearance and contained organic impurities. Another lot was considered unsatisfactory on account of an abnormal odor. Two other lots contained impurities in slight excess.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Kraemer, Henry: A discourse on the use of alcohol in the Pharmacopœia from the standpoint of its use in the making of medicinal preparations and the effect of prohibition on such use.—J. Am. Pharm. Assoc. 1920, v. 9, p. 55–60.

Fuller, H. C.: A discussion of substitutes for alcohol in the preparation of medicines.—J. Am. Pharm. Assoc. 1920, v. 9, p. 246–249.

Anon.: The Prussian Board of Health investigated the possibility of using propyl alcohol in place of ethyl alcohol. Pharmacological experiments indicate that the former exhibits qualitatively the same properties as the latter, but quantitatively is twice as powerful.—Chem. & Drug. 1920, v. 93, p. 1299.

Vernon, H. M.: A study of the influence of dilution on the toxic action of alcoholic liquids. For practical purposes 3 per cent alcohol as beer and 3 per cent cider are nontoxic. There is a distinct gap between 3 and 4 per cent beer, while 5 per cent beer is more toxic than 5 per cent whisky.—Physiol. Abstr. 1920, v. 5, p. 428–429.

Potts, Charles S.: A study of the effects of alcohol for the purpose of demonstrating that statements of its bad effects upon the human race are exaggerated.—New York M. J. 1920, v. 111, p. 573–579.

Porter, William H.: A note on alcohol as a nerve stimulator.—New York M. J. 1920, v. 111, p. 579–580.

Dale, H. H.: A discussion of alcohol with respect to its value as a therapeutic agent.—Proc. Roy. Soc. Med., Therap. Sec. 1920, v. 13, p. 31–36.

Anon: A review of a book by Charles Simmonds entitled *Alcohol: Its Production, Properties, Chemistry, and Industrial Applications. With Chapters on Methyl Alcohol, Fusel Oil, and Spirituous Beverages.*—Nature, London, 1920, v. 104, p. 431–432.

ALCOHOL, DENATURED (NONOFFICIAL).

Dobbie, J. J.: The use of denaturants suitable for alcohol which is to be used for various purposes is discussed.—J. Soc. Chem. Ind. 1920, v. 39, p. 86–88R.

Hasse, P.: Notes on the detection of denatured alcohol in beverages. Tests for the presence of acetone and pyridine are described.—Pharm. Zentralh. 1920, v. 61, p. 613–616.

Scott, R. W., and Hanzlik, P. J.: A report of a case of poisoning by alcohol denatured with nitrobenzene.—J. Am. M. Assoc. 1920, v. 74, p. 1000.

Anon.: Several reports on bad effects following the use of alcohol denatured according to formula No. 4 are submitted. These were obtained in reply to a request inviting criticism of this formula.—Drug & Chem. Markets, 1920, v. 6, p. 118.

ALCOHOL, METHYL (NONOFFICIAL).

Baskerville, Charles: Some chemical aspects of the wood alcohol problem are presented. The nomenclature is condemned and the effects of its use discussed.—New York M. J. 1920, v. 111, p. 580–583.

Anon.: Several druggists and organizations have taken steps to label wood alcohol as "wood naphtha" and denatured alcohol as "denatured naphtha." Others have decided to add coloring matter.—Nat. Drug Clerk, 1920, v. 8, p. 172.

Baskerville, Charles: An appeal to chemists to assist in the substitution of the name methanol for methyl alcohol, with the view to eventually eliminating the latter title completely.—Am. Druggist, 1920, v. 68, No. 8, p. 23–24.

Sabalitschka, Th.: Notes on the copper sulphate method for differentiating between methyl and ethyl alcohol.—Pharm. Zentralh. 1920, v. 61, p. 78–79.

Gettler, Alexander O.: A critical study of methods for the detection of methyl alcohol. Fifty-eight methods were examined to ascertain the reliability, specificity, sensitiveness, and influence of foreign substances. A bibliography is appended.—J. Biol. Chem. 1920, v. 42, p. 311–328.

Harrisson, W. E.: A comparison of methyl alcohol tests.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 294.

Hasse, P.: The oxidation methods for the detection of methyl alcohol in the presence of ethyl alcohol are complicated by the fact that the latter forms traces of formic aldehyde. When oxidation is carried out with permanganate under the proper conditions, this does not occur. The formaldehyde can be determined by the peptone, morphine, or fuchsin tests.—Pharm. Zentralh. 1920, v. 61, p. 177–182.

Schaffer, C.: The results of a critical study of Denigès' fuchsin-bisulphite method for the detection of methyl alcohol are given. This method is considered the most reliable of those in use at present, but only when applied to distillates, since sugars and glycerol react like methyl alcohol to the test.—U. S. Naval Med. Bull. 1920, Supplement No. 15, p. 15–17.

Mayer, Joseph L.: A method for the detection of wood alcohols in beverages, etc., is based on the fact that methyl alcohol can be oxidized to formaldehyde, which can be distilled and identified in the distillate by Marquis' reaction.—Am. Druggist, 1920, v. 68, No. 3, p. 22–23; J. Am. Pharm. Assoc. 1920, v. 9, p. 508–510.

Heiduschka, A., and Wolf, L.: A method for the quantitative determination of methyl alcohol is described. A quantitative method is also given for the determination of methyl alcohol in the presence of ethyl alcohol.—Pharm. Zentralh. 1920, v. 61, p. 361–366.

Schryver, S. B., and Wood, C. C.: A method for the estimation of methyl alcohol consists in determining the concentration of $(NH_4)_2S_2O_8$ necessary to destroy completely the formaldehyde formed in the initial stages of the oxidation process carried out under certain specified conditions.—Analyst (The) London, 1920, v. 45, p. 164–170.

Autenrieth, W.: The detection of methyl alcohol by the formation of the methyl ester of parabrombenzoic acid is described.—Arch. Pharm. 1920, v. 258, p. 1–15; Apoth.-Ztg. 1920, v. 35, p. 145–146.

Hunt, Reid: A discussion of the dangers incurred in the promiscuous use of wood alcohol.—J. Ind. & Eng. Chem. 1920, v. 12, p. 197–198.

Norris, Charles: A discussion of the lesions observed in wood alcohol poisoning.—New York M. J. 1920, v. 111, p. 583–585.

Hubbard, S. D.: A description of the symptoms accompanying acute and chronic poisoning with wood alcohol, its differential diagnosis, and its treatment.—New York M. J. 1920, v. 111, p. 16–19.

Isaacs, R.: The symptoms, pathology, and treatment of acute methyl alcohol poisoning are discussed. Eight cases are reported.—J. Am. M. Assoc. 1920, v. 75, p. 718–720.

Franceschi, Giambatista: Pure methyl alcohol is stated to be no more toxic than pure ethyl alcohol. Daily doses of 32 grams of methyl alcohol have been administered by the author for extended periods without causing the slightest indisposition. The toxic properties of commercial methyl alcohol are stated to be due to impurities.—Giorn. farm. chim. 1920, v. 69, p. 85–90; Boll. chim.-farm. 1920, v. 59, p. 409–413, 551–556.

Cutler, Colman W.: A general consideration of the effect of wood alcohol on the eyes.—New York M. J. 1920, v. 111, p. 585–587.

Anon.: The Chicago coroner's office reports 14 deaths from the use of denatured alcohol as a substitute for whisky since September 15, 1919.—Drug. Circ. 1920, v. 64, p. 21.

ALETRIS, N. F.

Viehoever, Arno: As a result of surveys of some of the crude drugs on the market, it was found that in one instance false unicorn root

(*Chamaelirium luteum*) was substituted almost entirely for true unicorn root (*Aletris farinosa*).—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 153.

Lampa, Robert R.: The average ash content of aletris root found on the market is 25 per cent. The N. F. standard allows not over 16 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495; D.-A. Apoth.-Ztg. 1920, v. 41, p. 13.

Roberts, J. G.: Two lots of aletris examined yielded 27 and 28 per cent of ash, respectively, which amounts are decidedly in excess of the N. F. standard of "not more than 16 per cent."—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

ALOE.

Rusby, H. H.: The plant yielding aloe should be referred to the family *Dracœnaceæ*.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Anon.: Statistics are given on the sources of supply and on the importation of aloe for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 43.

Linde, O.: The directions given in the Ph. Germ. for the microscopic examination of powdered aloe are criticized on the ground that they are not specific enough.—Apoth.-Ztg. 1920, v. 35, p. 441.

Auenmüller: Results obtained in an effort to determine the best method for the assay of aloe are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 468–469.

Kline, C. Mahlon: It is reported that it is almost impossible to obtain Socotrine aloe complying with the U. S. P. requirements for moisture and ash. One lot of aloe contained 2 per cent excess of ash.—Proc. N. W. D. A. 1920, p. 364.

Roberts, J. G.: One lot of Socotrine aloe examined contained 12.33 per cent more moisture than the U. S. P. standard of not more than 10 per cent. It also contained an excess of gum and inorganic impurities and yielded more ash than the U. S. P. standard of not more than 4 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Éwe, Geo. E.: A report of studies to determine the relative activity of the water-soluble and water-insoluble portions of aloe. Experiments on dogs showed that the water-soluble portion is far more active than the water-insoluble portion.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 251.

ALTHÆA.

Anon.: Statistics are given on the sources of supply and on the importation of althea for the year 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 40.

Boshart, Karl: Notes on the cultivation of althea. A bibliography is appended.—Heil- und Gewürzpflanzen. 1920, v. 3, No. 10, p. 225–234.

Hommell, P. E.: Althea or marsh mallow root is now rarely employed as an emollient or demulcent, but as it enters several U. S. P. preparations, it should be officially recognized.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Ballard, C. W.: Notes on the identification of marsh mallow root by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

ALUMEN.

Roberts, J. G.: One sample of potash alum examined contained an excess of arsenic amounting to two and one-half times that permitted by the U. S. P. It was also considerably effloresced as it had lost about 20 per cent of its water of crystallization.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Barfod, H. P. B.: The administration of a 2 per cent solution of alum is recommended for the treatment of whooping cough.—Ugeskrift for Laeger, September 11, 1919, through Brit. M. J. Epit. 1920, v. 1, p. 13.

ALUMINI HYDROXIDUM.

Gane, E. H.: It is suggested that aluminum hydroxide be deleted from the U. S. P. as it is not used with sufficient frequency to warrant official recognition.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

AMMONII BENZOAS.

Schamelhout, A.: A monograph on ammonium benzoate proposed for introduction into the Belgian National Formulary is submitted.—J. pharm. Belg. 1920, v. 2, p. 400.

Gane, E. H.: It is suggested that ammonium benzoate be deleted from the U. S. P. because of its infrequent use for therapeutic purposes.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

AMMONII CARBONAS.

Éwe, Geo. E.: A note on the difficulty of securing representative samples of lots of ammonium carbonate, with suggestions for overcoming this difficulty.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 249.

Éwe, Geo. E.: The solubility of unaltered U. S. P. ammonium carbonate in U. S. P. alcohol at 25° C. is found to be 2.12 grams per 100 cc.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 251.

AMMONII CHLORIDUM.

Engelhardt, H.: Two shipments of ammonium chloride assayed only 95.88 per cent of absolute NH_4Cl. The salt further contained 5.78 per cent of nonvolatile matter consisting of chlorides which would be equivalent to 4.86 per cent of sodium chloride. When assayed according to the U. S. P., the salt titrated 99.5 per cent of total chlorides calculated as ammonium chloride. This shows that the official assay process is wrong, because by it not only the ammonium chloride, but any other chlorides present in the product are estimated.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

AMMONII SALICYLAS.

Ėwe, Geo. E.: The solubility of ammonium salicylate in ether is found to be about 1 in 150, weight to volume.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 251.

Kolthoff, I. M.: Studies on the neutralization of weak acids by weak bases, with special reference to the purity tests for ammonium salts of weak acids.—Pharm. Weekblad, 1920, v. 57, p. 787–796.

AMMONII VALERAS.

Schamelhout, A.: A monograph on ammonium valerianate proposed for introduction into the Belgian National Formulary is submitted.—J. pharm. Belg. 1920, v. 2, p. 323–324.

Anon.: According to the new supplement to the Ph. Fr., ammonium valerianate may be slightly acid to litmus.—Chem. & Drug. 1920, v. 92, p. 456.

AMYGDALA AMARA, U. S. P. VIII.

Rosenthaler, L.: Data relative to the amygdalin content of bitter almonds are presented in the form of tables.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 13–18.

AMYGDALA DULCIS.

Rusby, H. H.: Sweet almond should be referred to the family *Drupaceæ.* An important botanical question which ought to be decided is whether the species referred to *Prunus* by most botanists, but producing pink flowers and having a foveolate stone should not be segregated as the genus *Amygdalus.*—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Gane, E. H.: It is recommended that sweet almond be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Linde, O.: Almonds are seeds. They should, therefore, be designated " Semen Amygdali " in the Ph. Germ. The Ph. Austr. employs the terms "Semen Amygdali dulce" and "Semen Amygdali amarum."—Apoth.-Ztg. 1920, v. 35, p. 441.

AMYLIS NITRIS.

Heiduschka, A.: A report of toxic symptoms produced by the inhalation of amyl nitrite vapors. The abnormal toxicity is thought to be due to the presence of butyric acid esters as impurities.—Pharm. Zentralh. 1920, v. 61, p. 205.

AMYLUM.

Biedermann, W.: Some observations on starch, starch grains, and starch solutions.—Pflügers Arch. d. Physiol. v. 183, p. 168–196, through Chem. Zentralbl. 1920, v. 91, Part III, p. 845.

Mannich, C., and Lenz, K.: A procedure for the polarimetric determination of starch depends on the solubility of starch in calcium chloride solution.—Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 40, p. 1–11.

ANTIMONII ET POTASSII TARTRAS.

Mayrhofer, Adolf: Microchemical tests for the identity and purity of antimony and potassium tartrate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 293–294.

ANTIMONIUM SULPHURATUM, N. F.

Mayrhofer, Adolf: Microchemical tests for the identification and purity of antimony sulphide are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 79.

Engelhardt, H.: The N. F., IV, requires that sulphurated antimony contain 45 per cent of antimony. One shipment assayed only 29.5 per cent, while another assayed only 28 per cent and also contained a large excess of sulphur.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

ANTIPYRINA.

Pitini, A.: The results of a study of the action of antipyrine on the liver cells are reported.—Arch. farmacol. sper. 1920, v. 29, p. 65–69.

APOCYNUM, N. F.

Beco and Dossin, F.: A report on the cardio-vascular action of cymarine, the active principle of *Apocynum cannabinum*. It is found to behave like a very active cardiac poison.—Bull. acad. roy. med. Belg. 1919, v. 29, p. 1184–1226, through Physiol. Abstr. 1920, v. 5, p. 325.

APOMORPHINÆ HYDROCHLORIDUM.

Tiffeneau, M.: The toxicity of diacetyl apomorphine is practically the same as that of apomorphine, but its emetic activity for the dog is twice as great.—J. pharm. et chim. 1920, v. 21, p. 204.

AQUA.

Baker, Gerald: A description of a permutit method of preparing ammonia-free water.—J. Ind. & Eng. Chem. 1920, v. 12, p. 798–799.

Nichols, M. S.: From an examination of 808 waters from Wisconsin it is concluded that a water containing five or more parts per million of nitrate should be considered potentially dangerous.—J. Ind. & Eng. Chem. 1920, v. 12, p. 987–989.

Hinman, Jack J., jr., et al.: Report of the committee on official standards of water analysis.—J. Am. Water Works Assoc. 1920, v. 7, p. 753–760, through Chem. Abstr. 1920, v. 14, p. 3733.

Anon.: An investigation of turbidity standards for water analysis.—Sci. Papers Bur. Standards, 1920, No. 367, p. 693–721.

Greenfield, R. E., and Baker, G. C.: Equations are developed for calculating the hydrogen-ion concentration of natural waters in which the carbon dioxide and bicarbonate content are expressed as ordinarily determined.—J. Ind. & Eng. Chem. 1920, v. 12, p. 989–991.

Winkler, L. W.: Contributions to water analysis. V. Methods are outlined for the approximate and quantitative determination of sulphates.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 311–312.

Berger, H.: A report of critical studies on the detection of nitrous acid in tap water.—Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 40, p. 225–243.

Thévenon, L.: A test for nitrites depends on the fact that a deep currant-red color is developed when 2 to 3 cubic centimeters of a freshly prepared solution of 0.5 gram of $p\text{-}C_6H_4OHNH_2HCl$ in 100 cubic centimeters of water and 6 to 8 drops of 33 per cent acetic acid is added to 10 to 100 cubic centimeters of the water to be tested.—J. pharm. et chim. 1920, v. 22, p. 336–337.

van Eck, P. N.: A study of the effect of certain salts on the determination of nitrites with the Griess reagent.—Chem. Weekblad, 1920, v. 17, p. 678.

Escaïch, A.: Some laboratory notes on the determination of nitrates and nitrites in water.—J. pharm. et chim. 1920, v. 22, p. 138–141.

Sabatini, Angel, and Palet, Luciano P.: Certain modifications of the Grandval and Lajoux method for the determination of nitrates in water are described.—Boletin minero de la sociedad nacional de mineria, Chile, 1919, v. 31, p. 195–196, through Chem. Abstr. 1920, v. 14, p. 1399.

Jolles, A.: A method is described for the detection of very small quantities of indican in water. The presence of the merest traces of indican in water is stated to be a certain indication of previous contamination with animal excreta.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 421–422.

AQUÆ AROMATICÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: The use of insoluble distributing substances of all kinds (purified talc, purified siliceous earth, and filter paper) should be omitted from the general process for the preparation of aromatic waters and the direct addition of the medication to the distilled water and the distillation method only be retained. By the direct addition of volatile oils, creosote, powdered camphor, etc., satisfactory waters may be prepared and the contamination which so often results from the use of foreign agents be avoided. Waters made in this way may be truly sterile and will keep much better than when made by the present general formula.—Am. J. Pharm. 1920, v. 92, p. 556–557.

Linde, O.: The preparation of cinnamon, fennel, and peppermint waters from the volatile oils, instead of by distillation as now directed by the Ph. Germ., is recommended.—Apoth.-Ztg. 1920, v. 35, p. 442.

Gane, E. H.: It is recommended that the following waters be deleted from the U. S. P., as they are not used for therapeutic purposes but mainly as flavoring agents: Anise water, bitter almond water, cinnamon water, creosote water, fennel water, peppermint water, and spearmint water.—Am. Druggist. 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

AQUA AMMONIÆ.

Burke, Winthrop M.: A study of the ionization of aqueous solutions of ammonia in the presence of urea.—J. Am. Chem. Soc. 1920, v. 42, p. 2500–2506.

Bachman, Gustav: Five samples of ammonia water examined were found to be below the U. S. P. strength in ammonia gas.—Proc. Minnesota Pharm. Assoc. 1920, p. 109.

AQUA AMYGDALÆ AMARÆ.

Linde, O.: The bitter almond water of the Ph. Germ., prepared by distillation, is stated to contain varying amounts of benzaldehydecyanhydrin and free hydrocyanic acid due to conditions which can not be controlled. To insure uniformity, preparation of an artificial water by the use of benzaldehyde, alcohol, and hydrocyanic acid is recommended.—Apoth.-Ztg. 1920, v. 35, p. 441–442.

AQUA DESTILLATA STERILISATA.

Mueller, Bertha: It is recommended that the technic for closing flasks intended for sterilized distilled water be modified in order to guard more effectively against contamination. Directions for such modification are given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 300.

AQUA HAMAMELIDIS.

Woods, Chas. D.: Two samples of witch hazel examined were in approximate accord with the requirements of the U. S. P.—Off. Insp. No. 95, Maine Agric. Exper. Sta. 1920, p. 11.

Holt, Thomas: Of 24 samples of witch hazel examined, 1 was adulterated.—Rep. Connecticut D. & F. Com. 1920, p. 14.

ARGENTI OXIDUM.

Gane, E. H.: It is recommended that silver oxide be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25: J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

ARGENTUM (NONOFFICIAL COMPOUNDS).

Gane, E. H.: It is suggested that silver nucleinate and proteinate be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Kröber, Ludwig: The following is recommended for silver protein compounds of the new edition of the German pharmacopœia: 1. Determination of silver by the Marschner-Rupp method with a minimum requirement of 7.78 per cent of silver; 2. Loss by drying not to exceed 3 per cent; 3. A test for the absence of ammonia; 4. A solubility test; 5. Tests for identity.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 597–603.

Gerasimow, A. F.: A method is given for the preparation of collargol, a colloidal silver preparation.—Journ. d. Russ. phys.-chem. Ges. 1916, v. 48, p. 251, through Koll. Ztschr. 1920, v. 27, p. 94.

Herzog, J.: A short note on the determination of the silver content of organic silver preparations.—Arch. Pharm. 1915, v. 253, p. 441, through Pharm. Zentralh. 1920, v. 61, p. 19–20.

Eyth, Hildegard: Some observations on accidents due to the intravenous injection of colloidal silver preparations.—Therap. Gegenw. 1920, v. 61, p. 207–208.

ARNICA.

Wimmer, Christian: A discussion of the adulteration of *Arnica montana* and also of the substitutes for arnica which are used in various countries.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 109–110, 119–120, 125, 133, and 137–138.

Eli Lilly & Co.: A sample of flower heads of *Hetherotheca inuloides* was submitted for arnica flowers.—Proc. N. W. D. A. 1920, p. 358.

Viehoever, Arno: The adulteration of arnica flowers with *Inula brittanica* is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

Ewe, Geo. E.: One lot of arnica examined, labeled "Arnica flowers 'Peruvian,'" appeared to be closely related to arnica, but was not the flower of *Arnica montana*, the official arnica flower.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Kline, C. Mahlon: During the war one shipment, purporting to be arnica, which was received was not *Arnica montana.* At present no difficulty is experienced in obtaining the genuine drug.—Proc. N. W. D. A. 1920, p. 364.

ARSENI IODIDUM.

Hommell, P. E.: Iodide of arsenic and Donovan's solution should be deleted from the U. S. P. and N. F. Fowler's and Pearson's solutions of arsenic are the most frequently called for.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

ARSENI TRIOXIDUM.

Weirich, C. L.: The analysis of crude arsenic for moisture and total As_2O_3 is described.—Chem.-Analyst, 1920, No. 30, p. 20–23.

Fleury, P.: Data relative to the quantitative estimation of arsenious acid by the iodometric method are presented.—J. pharm. et chim. 1920, v. 21, p. 385–391.

Fleury, Paul: A study of the action of iodine on arsenious acid and its phenyl derivatives.—Bull. soc. chim. France, 1920, v. 27, p. 490–507.

Gire, G.: Experimental data are given relative to the oxidation of arsenious anhydride in alkaline media in the presence of ferrous sulphate.—Compt. rend. acad. sc. 1920, v. 171, p. 174–176.

ARSENIC (NONOFFICIAL COMPOUNDS).

Editorial: A short history of the use of arsenic in human therapeutics.—New York M. J. 1920, v. 111, p. 337–338.

Gane, E. H.: It is suggested that sodium arsanilate be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Ireland, M. W., et al.: A compilation of regulations for the control of arsphenamine, neoarsphenamine and sodium neoarsphenamine. These regulations are designed as a guide for the manufacturer and for control officials. They embody very precise directions as to permissible containers, labels, arsenic content and procedure to be followed in determining the toxicity.—Misc. Publ. U. S. Public Health Service, 1920, No. 22.

Smith, William A.: A brief review of the history, sources of supply, rules for manufacture and chemical and physical properties of arsphenamine and neoarsphenamine. The technique of administration is described and the literature concerning unfavorable reactions and their causes is reviewed.—J. Lab. & Clin. Med. 1920, v. 5, p. 518–527.

Young, William J.: A note on the preparation of solutions of arsenic compounds and their administration. The gravity method is the most satisfactory for the intravenous administration of these compounds.—Miss. Valley Med. J. 1919, v. 26, p. 286, through Am. J. Syphilis, 1920, v. 4, p. 185–186.

Fleury, P.: The iodometric estimation of phenyl derivatives of arsenious acid in a mixture of arsenious acid, phenylarsine, diphenylarsine and triphenylarsine is described.—Bull. soc. chim. France, 1920, v. 27, p. 699–704.

Fourneau, E.: A review of the chemistry and methods of preparation of organic derivatives of arsenic.—Bull. sc. pharmacol. 1920, v. 27, p. 529–543, 578–589.

Finzi, C.: A review of arseno derivatives and salvarsan dealing with the methods of preparation and properties.—Giorn. chim. ind. 1920, v. 2, p. 49–59, through Chem. Abstr. 1920, v. 14, p. 1871.

Finzi, C.: A collection of the common methods for the synthesis of organic arsenic compounds described in the literature.—Giorn. di chim. ind. 1919, v. 1, p. 68–75, through Chem. Zentralbl. 1920, v. 91, part 3, p. 133.

Perutz, A.: Several reactions for establishing the identity and purity of salvarsan and neosalvarsan are described.—Wien. klin. Wchnschr. 1919, p. 1009, through Répert. pharm. 1920, v. 32, p. 146–147.

Bridel, Marc.: Brief descriptions are given of some new aromatic compounds of arsenic.—J. pharm. et. chim. 1920, v. 22, p. 93–109.

Anon.: At a recent meeting of the London Chemical Society, a new type of arsenobenzenes was described. Compounds of this type are obtained by the reduction of benzodiazolearsinic acids, which are produced by the action of acetic or formic acid on diaminophenylarsinic acid and its homologous. An abstract.—J. Ind. & Eng. Chem. 1920, v. 12, p. 182.

Pearce, Louise, and Brown, Wade H.: Doses of 0.225 gram of the β-methylureide of n-phenylglycine-p-arsonic acid administered intraperitoneally in mice were uniformly curative for infections with *Trypanosoma brucei*.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 242–243.

Wright, B. L., et al.: A preliminary report on the use of "Monarsone," a new arsenical compound, in the treatment of syphilis.—Med. Rec. 1920, v. 97, p. 607–609.

Kaufmann, Wilhelm: Favorable results obtained by the administration of "Arsamon," a new sterile solution of sodium monoethylarsenic acid, are reported.—Deutsch. med. Wchnschr. 1920, v. 46, p. 830.

Valeur, Amand, and Delaby, Raymond: A report of experiments on the production of ethylarsenic acid and its salts, with a review of the literature.—Bull. soc. chim. France, 1920, v. 27, p. 366–370.

Sabourand, R.: A comparison of the merits of arsenobenzol and of mercury in the treatment of syphilis.—Presse médicale, 1920, v. 28, p. 533–534.

Schamberg, Jay F., et al.: A comparative study of the trypanocidal activity of arsphenamine and neoarsphenamine.—Am. J. Med. Sc. 1920, v. 160, p. 25–36.

Bruck, C., and Bechher, H.: A report on the simultaneous combined neosalvarsan-novasurol treatment of syphilis. Novasurol is a double salt of sodium hydroxy-mercuric-chlorophenoxy-acetate and diethylmalonyl-urea. It contains 33.9 per cent of mercury.—Münch. med. Wchnschr. 1920, v. 67, p. 901–902.

Meyer, Fritz M.: Silver salvarsan and sulphoxylate salvarsan are to be preferred to the older arsenicals in the treatment of syphilis.—Deutsch. med. Wchnschr. 1920, v. 46, p. 943–944.

Leknoff-Wyld, F.: Some properties and reactions characteristic of sulfarsenol are described. It is only about one-third as toxic as the other arsenobenzenes and its aqueous solutions are stable toward air. J. pharm. Belg. 1920, v. 2, p. 647.

Doble, F. Carminow: Notes on the use of "sulfarsenol" ($C_{12}H_{11}As_2N_2CH_2OSO_2Na$) in the treatment of syphilis, with a report of cases.—Lancet (The), London 1920, v. 199, p. 243–244.

Roth, George B.: An investigation of the effect of shaking alkalinized aqueous solutions of arsphenamine and aqueous solutions of neoarsphenamine in the presence of air. The solutions are rendered highly toxic by this procedure, as shown by intravenous administration to white rats.—Public Health Rep. 1920, v. 35, No. 38, p. 2205–2210.

Schamberg, Jay F., et al.: A report of laboratory and clinical studies bearing on the causes of the undesirable reactions following intravenous injections of arsphenamine and neoarsphenamine.—Arch. Derm. and Syphilology, 1920, v. 38, p. 235, through Am. J. Syphilis, 1920, v. 4, p. 584–586.

Castello, V. Pardo: A discussion of the nature and treatment of accidents produced by the treatment of syphilis with arsenicals.—

Revista Medica Cubana, Havana, 1919, v. 30, No. 6, p. 346, through Am. J. Syphilis, 1920, v. 4, p. 386-387.

Kolmer, J. A., and Yagle, Elizabeth N.: Data are given showing the hemolytic activity of solutions of arsphenamine and neoarsphenamine. All solutions of arsphenamine were found to be hemolytic owing primarily to the direct hemolytic activity of arsphenamine itself. Neoarsphenamine is not hemolytic, although some of its solutions are.—J. Am. M. Assoc. 1920, v. 74, p. 643–646.

Nicaud, P.: A detailed report of cases of jaundice following treatment with salvarsan and neosalvarsan.—Presse médicale, 1920, v. 28, p. 322–324.

Krüger, Robert: A report of a death resulting from treatment with mercury-salvarsan.—Deutsch. med. Wchnschr. 1920, v. 46, p. 1247–1249.

Foulerton, A. G. R.: From a comparison of a number of fatal cases with an experimental study of the effect on rabbits, it is concluded that the poisonous properties of arsphenamine compounds is due primarily to arsenic, with probably some intensifying action of the benzene constituent.—Brit. M. J. 1920, v. 1, p. 864–867.

Schamberg, Jay F., et al.: A report of comparative studies of the toxicity of arsphenamine and neoarsphenamine.—Am. J. Med. Sc. 1920, v. 160, p. 188–198.

Stewart, M. J., et al.: A report of a case of subacute yellow atrophy of the liver in a case of syphilis following treatment with galyl.—J. Path. and Bact. 1920, v. 23, p. 120–122.

Strathy, G. S., et al.: A report on 58 cases of delayed arsenical poisoning following the administration of arsphenamine preparations.—Canadian Med. Assoc. J. 1920, v. 10, p. 336, through J. Am. M. Assoc. 1920, v. 74, p. 1422.

NEOARSPHENAMINE.

Verda: A physico-chemical examination of neosalvarsan. A specimen in the original bottle less than 2 years old was compared with two fresh authentic ampoule samples.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 280–283.

DeMyttenaere, M. F.: Samples of neosalvarsan substitutes examined were found to be spurious or deteriorated. Some of the samples were mixtures of sodium chloride with barium chromate and others consisted of flour colored with lead chromate. One sample was a mixture of sodium sulphate, calcium sulphate, and lead chromate.—J. pharm. Belg. 1920, v. 2, p. 853–856; Répert. pharm. 1920, v. 32, p. 338–341.

Bohny, P., and Fleissig, P.: A commercial sample purporting to be neosalvarsan was found to contain no arsenic and to consist of

33 per cent of sodium chloride and 66 per cent of sand colored yellow with ocre. Four similar cases are cited.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 521–524.

Kircher, A., and von Ruppert, F.: A method for the evaluation of neosalvarsan is based upon that described by Norton and Koch.—Ber. deutsch. pharm. Gessellsch. 1920, v. 30, p. 419–421.

Rödel, A.: A simple test to detect adulterated neosalvarsan consists in adding several drops of perhydro, or 1 cubic centimeter of 3 per cent hydrogen peroxide solution, to 1 to 2 cubic centimeters of a 10 per cent solution of the arsenic compound. In the case of the genuine article, a white precipitate results, which soon redissolves, producing a strong brownish-red solution and a garlic odor.—Deutsch. med. Wchnschr. 1920, v. 46, p. 999–1000.

van Ledden-Hulsebosch, C. J.: Four samples of neosalvarsan examined showed the following composition: (1) Fine yellow-colored sawdust, (2) wheat starch colored with aniline dyes, (3) lead chromate mixed with rye flour, and (4) finely powdered sodium sulphate containing a yellow coloring material.—Nederl. Tijdschr. Geneeskunde, v. 64, I, p. 961–962, through Chem. Zentralbl. 1920, v. 91, Part II, p. 631.

Patzschke, W.: A study of the behavior of neosalvarsan in sugar solution.—Deutsch. med. Wchnschr. 1920, v. 46, p. 179–180.

Taege, Karl: The administration of 3.3 grams of neosalvarsan in maximal doses in a period of 5 days without noticeable injury is reported.—Münch. med. Wchnschr. 1920, v. 67, p. 606.

Parnell, R. J. G., and Fildes, P.: A clinical study of the toxic reactions following the intravenous injection of novarsenobenzol-Billon and neokharsivan in 1,250 cases.—Med. Res. Com. Special Report Series, No. 41, through Brit. M. J. 1920, v. 1, p. 51–52.

Salotti: A report of the successful treatment of 23 cases of malaria, which resisted the action of quinine, with neosalvarsan.—Presse médicale, 1920, v. 28, p. 572.

ARSPHENAMINE.

Gane, E. H.: It is suggested that arsphenamine be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Lythgoe, Hermann C.: A brief description of the method of manufacturing arsphenamine as carried out by the Massachusetts Department of Public Health during the war.—Chem. Age. 1920, v. 28, p. 390–391.

Christiansen, Walter G.: Data relative to the preparation of arsphenamine by the use of hypophosphorous acid are presented. A method for the reworking of toxic arsphenamine is also given.—J. Am. Chem. Soc. 1920, v. 42, p. 2402–2405.

Utz: The detection of arsenic in salvarsan and neosalvarsan. Salvarsan and neosalvarsan can be oxidized in five minutes by ammonium persulphate or hydrogen dioxide in the presence of ferrous salts. The arsenic can then be detected by means of zinc chloride or hydrogen sulphide. Salvarsan acidified with hydrochloric acid in a platinum dish deposits arsenic in the neighborhood of an added piece of zinc.—Pharm. Zentralh. 1920, v. 61, p. 39–42.

Pyman, F. L., and Fargher, R. G.: A report of researches to determine the composition of salvarsan. A compound closely approximating in composition to the hydrochloride of the monosulphaminic acid of salvarsan was isolated. It is also suggested that sulphur attached to the arsenic directly is probably present.—J. Chem. Soc. Lond. 1920, v. 117, p. 370; Am. J. Pharm. 1920, v. 92, p. 237.

Klemensiewicz, Z.: A study of the colloidal properties of arsphenamine in aqueous solution, especially from the standpoint of the changes in the viscosity.—Bull. soc. chim. France, 1920, v. 27, p. 820–824.

Cousin, H.: A description of Ehrlich's method for the determination of arsinoxide in salvarsan. Data showing the arsinoxide content of samples of arsenobenzol are presented.—J. pharm. et chim. 1920, v. 22, p. 390–392.

Perutz, Alfred: Suggestions are made for the detection of adulterants in salvarsan preparations.—Wien. klin. Wchnschr. 1919, v. 32, p. 1009.

Utz: Several reactions for distinguishing between arsphenamine and neoarsphenamine are described.—Südd. Apoth.-Ztg. 1920, v. 60, p. 187–188; Chem. Zentralbl. 1920, v. 2, p. 772.

Raiziss, G. W., and Proskouriakoff, A.: A report of studies on the impurities in arsphenamine responsible for the toxic effects frequently observed following its administration.—Arch. Derm. & Syph. 1920, v. 2, p. 280, through J. Am. M. Assoc. 1920, v. 75, p. 895.

Utz: Some commercial products sold as salvarsan were found to consist of whiting and ochre, or yellow-colored salt.—Südd. Apoth.-Ztg. 1919, v. 59, p. 855–857, through Chem. Zentralbl. 1920, v. 91, Part II, p. 260.

Binz, A.: A review of recent developments in the use of salvarsan and its compounds.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 265–267.

Jackson, D. E., and Raap, G.: An experimental investigation of certain features of the pharmacological action of salvarsan, especially the effect on pulmonary pressure.—J. Lab. & Clin. Med. 1920, v. 6, p. 1–16.

Smith, Maurice I.: A report of further pharmacological studies on arsphenamine. The rise in pulmonary pressure produced by intravenous injections of arsphenamine is shown to be due to an obstruction of the pulmonary vessels, which may be caused by mechanical blocking or by a constricting action of the pulmonary vessels.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 279–295.

Johnson, John A.: From experiments on rabbits, it is concluded that the fear of production of blindness by therapeutic doses of salvarsan is unwarranted.—J. Am. Inst. Homeopathy, 1920, v. 12, p. 733–734.

Salvarsan Commission of the Cologne General Medical Society: A report of evidence gained in Germany, Austria, Holland, and Denmark on the secondary effects of salvarsan therapy. Excessive dosage is found to be the main factor in producing these disturbances. For man the daily dose should not exceed 0.6 gm. and for woman 0.45 gm.—Münch. med. Wchnschr. 1920, v. 67, p. 477–480.

Weigeldt, Walther: Rules for the administration of salvarsan, based on clinical experience, are given.—Deutsch. med. Wchnschr. 1920, v. 46, p. 1193–1195.

Wright, V. William M.: A preliminary report on the administration of salvarsan by rectum states that satisfactory results were obtained.—New York M. J. 1920, v. 112, p. 275–277.

Goodman, Herman: A report on the intensive administration of arsphenamine in 80 hospitalized syphilitic negro patients.—New York M. J. 1920, v. 112, p. 494–496.

Strickler, A. A., et al.: The results of investigations indicate that the injection of one seventy-fifth gr. of atropine sulphate or 0.5 cubic centimeter of adrenaline hydrochloride solution (1 : 1,000) previous to arsphenamine injections in no wise influences the occurrence of early reactive phenomena.—New York M. J. 1920, v. 112, p. 498–499.

Morrish, Ray S.: A note on the administration of concentrated arsphenamine and its relation to the nitritoid crisis.—J. Michigan State Med. Soc. 1919, v. 18, p. 467, through Am. J. Syphilis, 1920, v. 4, p. 186.

Moore, Joseph E., and Foley, Frederic E. B.: Four cases are described of severe reactions to the salvarsan or diarsenol brands of arsphenamine with an unusual blood picture, showing evidence of destruction of the bone marrow.—Arch. Derm. and Syphilology, 1920, v. 38, p. 25, through Am. J. Syphilis, 1920, v. 4, p. 388–389.

Hallam, Rupert: The cause for the appearance of jaundice in many cases following the injection of salvarsan has not yet been determined, but it is known that it follows more frequently after the use of certain preparations and that it may occur in epidemic form, suggesting a relationship to Weil's disease.—Lancet (The) London, 1920, v. 1, p. 1356–1359.

Hoffman, Edmund: Two cases of death caused by salvarsan are reported. The autopsy findings are described and the reports on 42 similar cases which appeared in the literature are reviewed.—Dermatol. Ztschr. 1919, v. 27, p. 65, through Zentralbl. Biochem. u. Biophys. 1920, v. 21, p. 176.

Hyman, A. S.: A report of a case of fatal post-arsphenamine jaundice. The case was not one of clear-cut acute or chronic arsphenamine poisoning, as the dose given (about 122 mg.) is considered too small to have produced the results reported.—New York M. J. 1920, v. 112, p. 496–498.

Nicaud, P.: A report of a case of very diffuse, severe, and rapidly progressing syphilitic meningomyelitis treated successfully with neoarsenobenzol.—Bull. et memoires de la Soc. Méd. des hôp. de Paris, 1919, v. 35, No. 29, p. 875, through Am. J. Syphilis, 1920, v. 4, p. 736–737.

Michael, W. H.: The cases reported indicate that arsphenamine administered in 0.6 gm. doses, intravenously, has no specific action in the treatment of malaria or the prevention of relapses in the disease.—U. S. Naval Med. Bull. 1920, v. 14, p. 643–644.

Bierbaum, K.: A study of the action of salvarsan upon erysipelas bacilli *in vivo* showed that this drug has a specific therapeutic effect upon the infection in white mice.—Ztschr. Immunität. 1917, v. 26, p. 325–329, through Chem. Abstr. 1920, v. 14, p. 425.

SILVER ARSPHENAMINE.

Binz, A., et al.: A report of studies on silver salvarsan, including descriptions of methods of preparing the base and of tests.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 416–428.

Anon.: Notes on the preparation and use of silver salvarsan.—Pharm. Zentralh. 1920, v. 61, p. 6–8.

Galewsky, E.: The sodium salt of silver salvarsan is stated to be the most potent salvarsan preparation known and to cause the least number of side reactions. It is very effective in the early treatment of sero-negative as well as sero-positive syphilis.—Münch. med. Wchnschr. 1920, v. 67, p. 124–127.

Pirig, W.: Notes on the technique of silver-salvarsan injections.—Berl. klin. Wchnschr. 1920, v. 57, p. 1167–1170.

Dub, Leo: A description of a simple technique for the intravenous injection of silver salvarsan.—Deutsch. med. Wchnschr. 1920, v. 46, p. 831.

Hetherington, A. J.: It is concluded from a comparison of the various methods that the intrarectal method of administering arsphenamine is the simplest. Directions for carrying out this technique are given in detail.—Am. J. Clin. Med. 1920, v. 27, p. 604–608.

Hahn, F.: Silver salvarsan is stated to be an excellent remedy in the early stages of syphilis.—Deutsch. med. Wchnschr. 1920, v. 46, p. 92–93.

Wagner, W.: A discussion of salvarsan therapy from the clinical point of view, with special regard to silver salvarsan. Silver salvarsan is stated not to be superior to the other salvarsans.—Münch. med. Wchnschr. 1920, v. 67, p. 780–781.

Hauck, L.: It is reported that in a series of 600 injections of silver salvarsan in the treatment of syphilis no serious disturbances due to the remedy were observed.—Medizinische Klinik, 1919, No. 24, p. 581, through Am. J. Syphilis, 1920, v. 4, p. 581.

Hoppe, J.: Observations on the elimination of arsenic in treatment with sodium silver salvarsan. The clinical results seemed to be favorable.—Münch. med. Wchnschr. 1919, v. 66, p. 1376.

Kolle, W.: It is concluded that silver salvarsan shows a higher toxicity for spirochaetes than salvarsan, but is no more toxic for human beings. Silver salvarsan is stated to contain about 22.4 per cent of arsenic and 14.1 per cent of silver.—Deutsch. med. Wchnschr. 1920, v. 46, p. 33–37.

Stühmer, A.: Silver salvarsan is found to be very effective as the sole therapeutic agent in early syphilis. In chronic cases, combination with mercury is necessary.—Münch. med. Wchnschr. 1920, v. 67, p. 836–838.

Riecke: A report of bad results following the use of silver salvarsan in a case of florid syphilis.—Medizinische Klinik, 1919, No. 14, p. 329, through Am. J. Syphilis, 1920, v. 4, p. 581.

Schlotz, W.: Silver salvarsan is stated not to offer any definite advantages over salvarsan in the treatment of syphilis.—Deutsch. med. Wchnschr. 1920, v. 46, p. 879–881.

ASAFŒTIDA.

Anon.: Statistics are given on the sources of supply and on the importation of asafetida for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 37–38.

Anon.: The new supplement to the Ph. Fr. permits the amount of residue on incineration of asafetida to be 20 per cent. The limit was formerly 10 per cent.—Chem. & Drug. 1920, v. 92, p. 456.

Rusby, H. H.: The definition for asafetida should say "by incising the living root," instead of "the root." The ash allowance should not be more than 15 per cent. To allow more invites adulteration, since no asafetida ever contains more than this amount unless intentionally adulterated.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Scoville, Wilbur L.: The U. S. P. gives two standards for asafetida. Gum asafetida must yield not less than 60 per cent of alcohol-soluble matter, whereas powdered asafetida must yield not less than 50 per cent of alcohol-soluble matter. One standard should be established.—J. Am. Pharm. Assoc. 1920, v. 9, p. 281.

Farwell, Oliver A.: It is suggested that the standard of strength for powdered asafetida should be the same as for the gum. The U. S. P. gives 60 per cent alcohol-soluble constituents for the gum, or 50 per cent for the powder. Powdering the gum does not change the constituents or alter the percentages thereof.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Andrews, L. T.: The following assay method for alcohol-soluble content in asafetida is suggested: place a cup-shaped, tared, filter paper (prepared by folding it over a cork) in a continuous extraction apparatus, add a weighed quantity of asafetida, and warm on a water-bath until all alcohol-soluble matter has been extracted. Then dry the filter, weigh the residue, and calculate the per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Kline, C. Mahlon: A ton of gum asafetida received from Germany, examined by the Department of Agriculture, contained 3 or 4 per cent of ash in excess of the U. S. P. requirements. Tests also revealed the presence of foreign resins.—Proc. N. W. D. A. 1920, p. 363.

Keenan, F. J.: Eight samples of asafetida examined showed an alcohol-soluble matter content ranging from 61.4 per cent to 72.3 per cent, and an ash yield of from 5.7 per cent to 18.1 per cent. The U. S. P. requires not less than 60 per cent alcohol-soluble matter and not more than 30 per cent ash.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Swift, Ernest E.: It is reported that the adulteration of asafetida during and since the war has been worse than it was ten years ago.—Proc. N. W. D. A. 1920, p. 360.

ASCLEPIAS, N. F.

Holman, J. E.: Notes on the therapeutic value and uses of asclepias.—Nat. Eclect. M. Assoc. Quart. 1920, v. 11, p. 236–237.

ASPIDIUM.

Rushby, H. H.: The author states that he never finds any *D. marginalis* in commercial aspidium, and that he does not know that any evidence has ever been adduced to prove that it is equally efficient with the genuine male fern. The activity of aspidium is a matter of such great importance that no doubtful product should be admitted under it.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241

H. M.: It is recommended that the new edition of the Ph. Germ. require a definite amount of extractive matter for aspidium, and that this be fixed at 15 to 18 per cent.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Éwe, George E.: One sample of male fern examined yielded over 6 per cent oleoresin.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Viehoever, Arno: As a result of surveys of some of the crude drugs on the market, *Aspidium aculeatum* and an *Osmunda* species, probably *Osmunda cinnamomea*, were found to be substituted for male fern or aspidium (*Dryopteris Filix-mas* or *marginalis*). The samples which, consisted of true *Aspidium*, were old and did not comply with the requirements of the U. S. P.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 153.

Karrer, P., and Widmer, Fr.: A description of the synthesis of aspidinol by the action of butyric acid nitrile and hydrochloric acid on methylphloroglucin—β—monomethyl ether.—Helvetica Chim. Acta, 1920, v. 3, p. 392–395.

Karrer, P.: A report of researches on the synthesis of compounds possessing the same physiological properties as the teniafuge constituents of male fern.—Helvetica Chim. Acta, 1919, v. 2, p. 466–481.

ASPIDOSPERMA.

Gane, E. H.: It is suggested that aspidosperma be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Éwe, George E.: The U. S. P. prescribes no alkaloidal standard for aspidosperma. The U. S. P. method for cinchona is satisfactory and a standard of 1 per cent total alkaloids is suggested based upon the assay of five samples during the past seven years.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Burdick, Alfred S.: It is suggested that an assay process for aspidosperma be included in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

ATROPINA.

Guerbet, Marcel: A description of a reaction of benzoic acid based upon diazotisation, and an account of the application of this reaction to the toxicological detection of atropine, cocaine, and stovaine.—J. pharm. et chim. 1920, v. 22, p. 321–323.

Togawa, T.: The biochemical recognition of atropine. The method depends upon the fact that 0.04 mg. of atropine will prevent the flow of saliva in an animal after the intravenous injection of vitamine preparations.—Biochem. Ztschr. 1920, v. 109, p. 43–46.

Kunz-Krause, H.: An investigation of the cause for the difference in the strength of the mydriatic action of pure atropine solutions and tincture or extract of belladonna when used in eye work.—Kolloid-Ztschr., through Pharm. Zentralh. 1919, v. 60, p. 564.

Heflebower, R. C.: A note on the properties and uses of atropine.—Eclectic M. J. 1920, v. 80, p. 4.

Sterling, A.: A plea for the early administration of atropine or belladonna in influenzal pneumonia.—New York M. J. 1919, v. 110, p. 237–238.

ATROPINÆ SULPHAS.

Burdick, Alfred S.: It is stated that the melting point of atropine sulphate, when free from hyoscyamine, is 194° C., not 181–183° C.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Forsythe, Warren E.: A report of a case of poisoning following the ingestion of one-quarter grain of atropine sulphate.—J. Am. M. Assoc. 1920, v. 75, p. 177.

AURANTII AMARI CORTEX.

Linde, O.: Since a fruit skin is spoken of as a pericarp in botany, the title "Cortex Aurantii Fructus" given in the Ph. Germ. is incorrect. It should be "Pericarpium Aurantii" as given in the Ph. Austr.-Apoth.-Ztg. 1920, v. 35, p. 450.

AURI ET SODII CHLORIDUM.

Hommell, P. E.: The chloride of gold and sodium has no merited popularity and should be deleted from the U. S. P.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

BALSAMUM PERUVIANUM.

Rusby, H. H.: The plant yielding balsam of Peru should be referred to the family *Papilionaceæ*.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Anon.: Statistics are given on the sources of supply and on the importation of balsam of Peru for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 29–30.

Bennett, C. T.: In addition to a description of the procedure followed by the natives of San Salvador in preparing the balsam of Peru for commerce, the paper deals with the more commonly employed tests for purity.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 131–133.

Anon.: According to the new supplement to the Ph. Fr., balsam of Peru is required to contain 52 to 56 per cent of cinnamein.—Chem. & Drug. 1920, v. 92, p. 456.

Bennett, C. T.: A discussion of methods for the analysis of balsam of Peru, with special reference to the methods given in the United States and British Pharmacopœias. The U. S. P. requirements for cinnamein content, specific gravity and solubility are criticized.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 131–133.

van Itallie, L.: Samples of Peru balsam were found to be adulterated with o–$C_6H_4(COOCH_3)_2$ and $(C_6H_5CO)_2O$. Both give with resorcinol and sulphuric acid a pronounced fluorescence, while Peru balsam responds only very faintly to this test.—Pharm. Weekblad, 1920, v. 57, p. 1383–1385.

H. M.: It is recommended that the new edition of the Ph. Germ. specify that the mixture be heated on an asbestos wire mat in the determination of the saponification number of Peru balsam.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

Linde, O.: It is recommended that a test for the detection of synthetic Peru balsam be introduced into the Ph. Germ.—Apoth.-Ztg. 1920, v. 35, p. 450.

van Itallie, L.: Constants of and tests for balsam of Peru which should be included in the Ph. Ndl. are presented. An abstract.—Chem. & Drug. 1920, v. 93, p. 1134.

Fourneau, Ernest, and Crespo, Mario: Analytical data obtained in the alcoholysis of the balsams of Peru and Tolu, storax, and benzoin are presented.—Anales soc. española fis. quim. 1920, v. 18, p. 148–153.

Rusby, H. H.: The principal active constituent of the balsams of Tolu and Peru is benzyl-benzoate, of which balsam of Peru contains six to ten times as much as does balsam of Tolu, the inert resin of the latter being nearly three times that of the former. In spite of these facts, the U. S. P. assigns the same dose for both.—Am. Druggist, 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

BALSAMUM TOLUTANUM.

Anon.: Statistics are given on the sources of supply and on the importation of balsam of Tolu for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 29–31.

Rusby, H. H.: The plant yielding balsam of Tolu should be referred to the family *Papilionaceæ*.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241:

H. M.: It is recommended that the new edition of the Ph. Germ. include reliable tests for the identity and purity of Tolu balsam.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

van Itallie, L.: Constants and tests for balsam of Tolu which should be included in the Ph. Ndl. are presented. An abstract.—Chem. & Drug. 1920, v. 93, p. 1134.

Éwe, George E.: Four lots of balsam of Tolu examined were soluble in alcohol to the extent of 92.6, 96.0, 98.1, and 99.2 per cent, respectively.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

BELLADONNÆ FOLIA.

Anon.: Statistics are given on the sources of supply and on the importation of belladonna.—Tariff Commission Series, 1920, No. 19, p. 47–48.

Kilmer, Fred B., and Smith, Ralph O.: An account of the cultivation of belladonna in a practical way. Illustrated.—Am. J. Pharm. 1920, v. 92, p. 620–630.

Rusby, H. H.: The author renews his recommendation that the definition for belladonna leaves be made to include stems not more than 7 mm. in diameter.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Engelhardt, H.: It is suggested that the official allowance of 10 per cent of stems to the leaves of belladonna should be considerably extended and that 20 to 30 or even 50 per cent of stems should be allowed. It has been shown that the stems contain a fair amount of alkaloids, and when mixed with the leaves still yield a drug which contains more alkaloids than officially required. Probably it would be possible to use the whole herb instead of the leaves plus 10 per cent or more of stems.—Proc. Maryland Pharm. Assoc 1920, p. 25.

Éwe, George E.: It is suggested that the whole dried plant, exclusive of the root, should be made official instead of only the dried leaves and tops. The cost of U. S. P. belladonna would be reduced, since the harvesting would be simplified.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Koch, George P.: It is recommended that primary and secondary stems be permitted in conjunction with the leaves of belladonna. Data on the subject is given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Auenmüller: Results obtained in an effort to determine the best method for the assay of belladonna and its preparations are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 452.

Viehoever, Arno: The adulteration of belladonna (*Atropa belladonna*) with *Solanum nigrum* is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

Eli Lilly & Company: One shipment of belladonna leaves examined was badly cured, and assayed far below the U. S. P. requirements. A sample containing *Solanum carolinense* was submitted for belladonna.—Proc. N. W. D. A. 1920, p. 358.

Roberts, J. G.: One lot of belladonna leaves examined assayed only 0.27 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

Éwe, George E.: Twelve samples of belladonna leaves examined were above the U. S. P. standard of 0.3 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

BELLADONNÆ RADIX.

Rusby, H. H.: The definition for belladonna root excludes "more than 10 per cent of stem bases and other foreign matter," but hard woody crowns have less activity than the stem bases rather than more. The author recommends that this should read "not more than 10 per cent of stem bases, woody crowns, or other foreign matter."—Am. Druggist, 1920, v. 68, p. 24: J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Burdick, Alfred S.: It is suggested that in the assay of belladonna root and similar assays the final chloroform extracts of the alkaloids should be filtered through a small filter paper before evaporating to dryness.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Éwe, George E.: Of 12 samples of belladonna root examined 10 were above and 2 were below the U. S. P. standard of 0.45 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

BENZALDEHYDUM.

Anon.: U. S. patent No. 1,302,273 describes the manufacture of benzaldehyde by heating toluene with manganese dioxide and sulphuric acid, using ferric, copper, or cerium sulphate as a catalyst.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 81.

Anon.: The U. S. P. has not included a statement as to the refractive index of benzaldehyde, which lies between 1.544 and 1.546 at 20° C. It should also be stated that benzaldehyde is optically inactive.—Semi-Ann. Rep. 1918, Apr.-Oct., p. 54.

Parry, Ernest J.: It is stated that the supply of benzaldehyde containing 0.01 per cent of chlorine or less is plentiful, but that those manufacturers who desire benzaldehyde for use in the preparation of artificial oil of bitter almond require a product which is absolutely chlorine free.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 342.

Rusby, H. H.: When benzaldehyde is of synthetic origin, the label should be required to so state.—Am. Druggist, 1920, v. 68, p. 24: J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

BENZINUM PURIFICATUM.

E. P. H.: Two methods for the determination of aromatic hydrocarbons in benzine are described.—Schweiz. Apoth.-Ztg. 1920, v. 58 p. 509–510.

BENZOINUM.

Kline, C. Mahlon: Gum benzoin customarily contains less alcohol-soluble material than that specified in the U. S. P.—Proc. N. W. D. A. 1920, p. 363.

Maldonado, Ed.: Benzoin from Peru is identified as a gum resin obtained from *Styrax ovatus.* The constituents identified are a gum, an oxidase, vanillin, and benzoic acid.—El Boletino Farmaceutico de Lima, 1920, June 30, through J. pharm. Belg. 1920, v. 2, p. 985.

Fourneau, Ernest, and Crespo, Mario: Analytical data obtained in the alcoholysis of the balsams of Peru and Tolu, storax, and benzoin are presented.—Anales soc. española fis. quim. 1920, v. 18, p. 148–153.

Zinke, Alois, and Dzrinal, Johanna: A contribution to our knowledge of resinous constituents. VII. Studies on lubanol benzoate from Siam benzoin.—Monatsh. Chem. 1920, v. 41, Nos. 6 and 7, p. 423–441.

Roberts, J. G.: A broker's sample of Sumatra benzoin was rejected because it contained only 70.95 per cent of alcohol-soluble matter instead of not less than 75 per cent, as required by the U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

Suto, K.: Twenty-five samples of benzoin examined were soluble in alcohol, ranging from 62.7 to 79.2 per cent. The U. S. P. requires not less than 75 per cent. The ash content of these samples ranged between 1.3 and 1.7 per cent, which is well within the U. S. P. limit of 2 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109–110.

BENZOSULPHINIDUM.

Éwe, George E.: A melting interval of 224° to 226° C. is suggested for benzosulphinide, as the U. S. P. melting interval appears to be low. One lot of benzosulphinide examined melted at 225° C., but was otherwise U. S. P. Three other lots examined were strictly U. S. P., but had melting intervals averaging 226°, 228°, and 225° C., respectively.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301.

Thevenon, L.: A new reaction for the detection of saccharin is based on the presence of the benzoyl-imide group. The latter upon diazotisation forms a diazo derivative, which when combined with β-naphthol forms a red coloring matter.—J. pharm. et chim. 1920, v. 22, p. 421–422.

Laborde and Clairet: Saccharin may be determined quantitatively by dissolving it in an excess of N/10 soda or N/10 ammonia and titrating back with N/10 sulphuric acid, using litmus or phenolphthalein as indicator.—Bull. de la soc. ch. Procès verbaux des Séances, 1920, May 14, p. 5, through Ann. Falsif. 1920, v. 13, p. 165.

Olszewski, W.: Tests for the detection of all common adulterants of saccharin are described.—Pharm. Zentralh. 1920, v. 61, p. 583-585.

Prizker, J.: A discussion of the chemical changes affecting the composition of saccharin-sodium bicarbonate tablets.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 29–30.

Beyer, O.: A report of an examination of saccharin-bicarbonate tablets to determine the changes in composition which take place on keeping. The examination of a series of tablets of uniform quality showed, among other things, a loss of carbon dioxide when stored for periods varying from 24 days to 12 months. The amount of free saccharin diminished from 10 per cent after 3 months to 0.77 per cent at the end of 12 months.—Chem.-Ztg. 1919, v. 43, p. 751.

Engelhardt, H.: One shipment of saccharin examined contained iron and other impurities.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

Queeny, John F.: A presentation of the case of saccharin versus sugar, in which evidence is given to show that saccharin is harmless when used as a sweetener.—Chem. Age. 1920, v. 2, p. 367–369.

Blodgett, S. H.: From experiments on man and dogs over a long period of time, it is concluded that the use of saccharin by diabetics is harmless.—Med. Rec. 1920, v. 97, p. 521–523.

BENZYL BENZOATE (NONOFFICIAL).

Eli Lilly & Company: Numerous samples of benzyl benzoate examined were of very poor quality. Very few answered the requirements as outlined by *New and Nonofficial Remedies*. Benzaldehyde is usually present.—Proc. N. W. D. A. 1920, p. 359.

Ewe, George E.: One lot of benzyl benzoate examined assayed only 90.57 per cent of benzyl benzoate, whereas the N. & N. R. requires 95 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

Cook, E. F., and Nichols, A. B.: A report of experiments in the preparation of emulsions of benzyl benzoate.—Am. J. Pharm. 1920, v. 92, p. 800.

Mason, Edward C., and Pieck, Carl E.: A report of a pharmacological study of benzyl benzoate. A prompt and prolonged fall in arterial pressure was observed in dogs, also a relaxation of intestinal tone.—J. Lab. & Clin. Med. 1920, v. 6, p. 62–77.

Heller, Edwin A., and Steinfield, Edward: A study of the nonleucotoxic properties of benzyl benzoate. A wide margin of safety exists between the therapeutic doses and the toxic doses of benzyl benzoate, based upon observations on rabbits.—New York M. J. 1920, v. 112, p. 160–161.

Anon.: A note on the use of benzyl benzoate in place of opium.—Am. J. Clin. Med. 1920, v. 27, p. 76–77.

McMurray, T. E.: Benzyl benzoate is reported to give satisfactory and immediate results in the treatment of whooping cough. The dose given was from 5 to 30 minims every 4 hours, depending upon results.—New York M. J. 1920, v. 112, p. 122.

Macht, David I.: Notes on the use of benzyl benzoate in some circulatory conditions. Benzyl benzoate is shown to be a powerful vasodilator without being depressant to the heart when administered by mouth in small doses.—New York M. J. 1920, v. 112, p. 269–271.

Woloshin, Benjamin: A report of a case in which beneficial results were obtained in the treatment of asthma with benzyl benzoate by injection.—New York M. J. 1920, v. 112, p. 403.

BETANAPHTHOL.

Escaïch, A.: α-naphthol may be distinguished from β-naphthol by the addition of sodium nitrite and a few drops of Denigès reagent. The former gives a red color and then a precipitate resembling mercuric iodide. The latter gives a yellowish precipitate.—J. pharm. et chim. 1920, v. 22, p. 141.

Decker, C. C.: One lot of betanaphthol examined was slightly acid to litmus, whereas the U. S. P. requires it to be neutral.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

Smillie, Wilson G.: A report of cases of poisoning due to the administration of betanaphthol in the treatment of hookworm.—J. Am. M. Assoc. 1920, v. 74, p. 1503–1506.

BISMUTHI SUBCARBONAS.

Schamelhout, A.: A tentative monograph proposed for introduction into the Belgian National Formulary is submitted for bismuth subcarbonate.—J. pharm. Belg. 1920, v. 2, p. 719.

Loeper, M.: Favorable results with bismuth subcarbonate in the treatment of oxyuris are reported.—Répert. pharm. 1920, v. 31, p. 272.

BISMUTHI SUBNITRAS.

Anon.: According to the new supplement to the Ph. Fr., slight opalescence on the addition of solution of silver nitrate is now permitted in bismuth subnitrate. Furthermore, all products may be used which do not yield more than 81 per cent of anhydrous bismuth oxide.—Chem. & Drug. 1920, v. 92, p. 456.

Traub, M. C.: Attention is called to the fact that a larger quantity of diluted sulphuric acid (Ph. Helv.) must be used in the solubility test for bismuth subnitrate than is directed to be used by the Ph. Germ. This is due to the fact that 25 cubic centimeters of the acid of the German Pharmacopœia contains 4.448 grams of H_2SO_4, whereas the Swiss acid contains only 2.65 grams.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 526.

Keenan, F. J.: One lot of bismuth subnitrate examined was rejected because it possessed a pinkish color, contained a slight excess of sulphates and an excess of arsenic.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

Constantinescu, C. D., and Jonescu, A.: Poisoning by bismuth subnitrate is attributed in part to the nitric acid which is formed in the decomposition of the salt in the intestines and in part to the formation of a soluble chloride which occurs in cases of hyperacidity.—Presse médicale, 1920, v. 28, p. 155.

BOLDO, N. F.

Éwe, George E.: Three lots of boldo leaves examined contained 5.1, 7, and 13 per cent, respectively, of stems, which are in excess of the U. S. P. limit of only 2 per cent. However, the U. S. P. limit appears to be rather low.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

BRAYERA, N. F.

Lampa, Robert R.: The average ash content of kousso found on the market is 17.50 per cent. The N. F. allows not over 9 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

BROMOFORMUM.

Gane, E. H.: It is suggested that bromoform be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

BRYONIA, N. F.

Sharp, E. G.: Notes on the therapeutic value and uses of bryony.—Nat. Eclect. M. Assoc. Quart. 1920, v. 11, p. 304–305.

BUCHU.

Rusby, H. H.: The whole subject of buchu requires investigation. While it is true that the two official species are probably equal in efficiency, yet they are sufficiently different to enable anyone to distinguish them by their odor and taste. Hence, both drugs and their preparations should always bear a statement to indicate the variety.

There are several other species of *Barosma* which may be equally efficient and equally entitled to a place in materia medica. The subcommittee on therapeutics would confer a great service if they would investigate this question.—Am. Druggist, 1920, v. 68, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 241.

Anon.: Statistics are given on the sources of supply and on the importation of buchu leaves for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 29.

Anon.: Data are given showing the quantity in pounds of buchu leaves exported from Cape Colony in the years 1900 to 1916.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 10.

Anon.: A reprint of the rules and regulations prescribed by the Cape government of South Africa for control over the gathering of buchu leaves.—Chem. & Drug. 1920, v. 92, p. 201.

CACAO PRÆPARATA, N. F.

Murrill, W. A.: An account of the culture of cacao and the manufacture of cocoa and chocolate.—Sci. Am. 1920, v. 122, p. 626.

Ceriotti, Antonio: Methods for the determination of the alkaloids of cacao are described.—Anal. soc. quim. Argentina, 1920, v. 8, p. 400–403.

Anon.: A review of a volume by Arthur W. Knapp, entitled *Cocoa and Chocolate: Their History from Plantation to Consumer*.—Bull. Imp. Inst. 1920, v. 18, p. 570–571.

CAFFEINA.

Scoup: A test for distinguishing between caffeine and theobromine is based on the difference in color produced by a solution of potassium dichromate in sulphuric acid.—Pharm. Monatsh. 1920, p. 87, through Schweiz. Apoth.-Ztg. 1920, v. 58, p. 613–614.

Éwe, George E.: Data relative to the possibility of reclaiming a portion of the caffeine which is volatilized in the process of roasting coffee are presented.—Am. J. Pharm. 1920, v. 92, p. 310–315.

Ēwe, George E.: One lot of caffeine examined was strictly U. S. P. in quality, except for a faintly "soapy" odor, which was readily eliminated by warming a trifle. It was slightly damp yet contained only 7.6 per cent water of crystallization, whereas the U. S. P. allows as much as 9 per cent of water. The melting range was 238° to 242° C.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

CAFFEINÆ SODIO-BENZOAS.

Gane, E. H.: It is suggested that caffeine sodio-benzoate be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

H. M.: It is recommended that the method of Lehmann and Müller for the determination of caffeine in caffeine sodiobenzoate replace the method given in the present edition of the Ph. Germ.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

CALCII BROMIDUM.

Schamelhout, A.: A tentative monograph on calcium bromide, proposed for the Belgian National Formulary, is submitted.—J. pharm. Belg. 1920, v. 2, p. 857.

CALCII CARBONAS PRÆCIPITATUS.

Nichols, Adley B.: A short historical note on the use of calcium carbonate in pharmacy and medicine.—Am. J. Pharm. 1920, v. 92, p. 391–393.

Ehmann, Karl F.: Notes on calcium carbonate include descriptions of the different varieties and impurities characteristic of each. Most of the precipitated calcium carbonate on the market is stated to contain iron.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 256–257.

Prescher, Johannes: A discussion of methods for the assay of calcium carbonate.—Pharm. Zentralh. 1920, v. 61, p. 453–454.

Eli Lilly & Company: One lot, purporting to be calcium carbonate, proved, upon examination, to be calcium sulphate.—Proc. N. W. D. A. 1920, p. 360.

Zimmermann, W.: Samples of calcium carbonate tested were found to contain magnesium, aluminum, iron, and silicates.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 44.

CALCII CHLORIDUM.

Lyons, A. B.: A note suggests that the solubility tests for calcium chloride given in the U. S. P., IX, be revised.—J. Am. Pharm. Assoc. 1920, v. 9, p. 301–302.

CALCII GLYCEROPHOSPHAS.

Éwe, George E.: It is suggested that the U. S. P. requirement of not less than 26.1 per cent of CaO in calcium glycerophosphate appears to be low, and that a standard for phosphorus content should be required.—J. Am. Pharm. Assoc. 1920, v. 9, p. 302.

Bailly, Octave: A report of researches to determine the constitution of the glycerophosphoric acids. The calcium salt is shown to be a combination of the α-acid, while the sodium salt appears to be a derivative of the β-acid.—Bull. soc. chim. biol. 1919, v. 1, p. 152–162, through Chem. Abstr. 1920, v. 14, p. 3430.

American Drug Manufacturers' Association: The Scientific Section of the American Drug Manufacturers' Association recommends that to the tests for calcium glycerophosphates there be added a titration method. The method recommended is described in detail.—J. Am. Pharm. Assoc. 1920, v. 9, p. 302.

Lizius, J. L.: A criticism of the U. S. P. test for inorganic phosphate in the glycerophosphates. A more satisfactory test is described.—Pharm. J. 1920, v. 105, p. 100–101; Chem. & Drug. 1920, v. 93, p. 1066.

CALCII PHOSPHAS PRÆCIPITATUS, N. F.

Anon.: A tentative monograph on calcium phosphate, suitable for introduction into the Belgian National Formulary, is submitted.—J. pharm. Belg. 1920, v. 2, p. 929.

CALCII SULPHIDUM CRUDUM.

Engelhardt, H.: One shipment of calcium sulphide examined contained a considerable amount of calcium sulphite.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

CALUMBA.

Anon.: Statistics are given on the sources of supply and on the importation of colombo root for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 45–46.

CAMBOGIA.

Grant, E. H.: A description of a new test for gamboge.—J. Am. Pharm. Assoc. 1920, v. 9, p. 764.

CAMPHORA.

Rusby, H. H.: The U. S. P. definition of camphor reads: " a ketone derived from *Cinnamomum camphora;* it is dextrogyre." This is not good form for a definition. Only in case the plant yielded more than one ketone should the definition specify that such ketone is dextrogyre. This statement should form a part of the description and not of the definition. If included in the definition at all, it should be defined as " a dextrogyre ketone derived from," etc.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

Black, C. L.: In the U. S. P. description of camphor the paragraph beginning with " The specific rotation " is in conflict with the definition of specific rotation. It is suggested that possibly the insertion of " observed " before " in a 200 mm. tube " would correct the error.—J. Am. Pharm. Assoc. 1920, v. 9, p. 302.

Anon.: Statistics are given relative to the production, distribution, and price developments of camphor during the twenty-five year period 1896–1920.—Drug & Chem. Markets, 1920, v. 7, p. 165–167.

Anon.: An account of the present position of the camphor industry. The effect of the Japanese monopoly has been to encourage the production of natural camphor in various countries and to stimulate the manufacture of synthetic camphor.—Bull. Imp. Inst. 1920, v. 18, p. 524–536.

Carmody, P.: An account of the production of camphor in the British Empire.—Times Trade Suppl., April 10, through Chem. Met. Eng. 1920, v. 22, p. 1030.

Cayla, V.: A discussion of the present state of camphor production and suggestions for experiments in growing the camphor tree.—L'Agronomie Coloniale, 1919–1920, n. s. year 4, No. 28, p. 97–109, through Intern. Rev. Sc. & Pract. of Agric. 1920, v. 11, p. 590–594.

Anon.: Notes on the production of camphor in Italy, with special reference to the work by Prof. Italo Giglioli entitled *La Canfora Italiana*.—Rivista italiana della Essenze e Profumi, 1920, year 2, No. 2, p. 13-17, through Intern. Rev. Sc. & Pract. Agric. 1920, v. 11, p. 726–728.

Price, Ernest B.: An account of the camphor industry in Foochow.—Com. Rep. 1920, No. 194, p. 835–837.

Dubosc, A., and Luttringer, A.: An account of the preparation of camphor from oil of turpentine by means of salicylic acid and an alkaline peroxide.—Bull. soc. ind. Rouen, 1920, v. 48, p. 85.

Anon.: The arrival of a shipment of 25,000 pounds of synthetic camphor from Germany is reported.—Oil, Paint, and Drug Rep. 1920, v. 98, No. 26, p. 67.

Simonsen, J. L., and Ghose, T. P.: Data obtained in distillation experiments to determine the camphor content of various portions of the camphor tree grown in India are reported.—J. Soc. Chem. Ind. 1920, v. 39, p. 296–298T.

Cavara, F.: Data are given showing the quantities of camphor and camphor oil yielded by plants grown in various parts of Italy.—Revista ital. delle Essenze e Profumi, 1920, year 2, No. 2, p. 13–17, through Intern. Rev. Sc. & Practice of Agric. 1920, v. 11, p. 726–728.

A. D.: A comparison of the amounts of camphor and oil obtained in the distillation of leaves and slender branches of young trees with that obtained from the trunk.—Rev. prod. chim. 1920, v. 23, p. 665–666.

Anon.: Data obtained in experiments to determine the feasibility of extracting camphor and camphor oil from the young leaves of *Cinnamomum camphora* by steam distillation are presented.—Rev. prod. chim. 1920, v. 23, p. 665–666.

Dovey, E. R.: A description of a method for the examination of Chinese crude camphor. Moisture and oil content are determined, the remainder being considered as camphor.—Analyst (The), London, 1920, v. 45, p. 220–221.

Lane, K. W., and Lubatti, O. F.: The determination of the water content of crude camphor by the use of the centrifuge is described.—J. Soc. Chem. Ind. 1920, v. 39, p. 50T.

Joachimoglu, Georg: A study of the action of d-, l-, and i-camphor on the smooth muscle of the leach. The three isomers were found to act the same qualitatively and quantitatively.—Arch. exper. Path. u. Pharmakol. 1920, v. 88, p. 364–370.

Bohrisch: A discussion of the question "Is the therapeutic action of synthetic camphor the same as that of the natural product?"—Pharm. Zentralh. 1920, v. 61, p. 403–405.

CAMPHORA MONOBROMATA.

Schamelhout, A.: A tentative monograph on monobromated camphor, proposed for the Belgian National Formulary, is submitted.—J. pharm. Belg. 1920, v. 2, p. 970.

Gane, E. H.: It is suggested that monobromated camphor be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

CANNABIS.

Anon.: The U. S. P. method for the physiologic standardization of cannabis is stated to be inaccurate, but useful in detecting the drug which is practically inert. Methods of removing the oil from the seed previous to extracting the drug are also discussed.—Proc. Am. Drug Mfg. Assoc. 1920, p. 223–226.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the U. S. P. method for the physiologic assay of cannabis.—Am. J. Pharm. 1920, v. 92, p. 643.

Pittenger, P. S.: In the report of the committee on physiologic assaying of the American Pharmaceutical Association, recommendations are made for changes in the U. S. P. method for the assay of cannabis.—J. Am. Pharm. Assoc. 1920, v. 9, p. 615–616.

Colson, H. C., Jr.: It is suggested that an impartial laboratory, e. g., the Hygienic Laboratory, should be asked to prepare and distribute a standard fluidextract of cannabis to laboratories making physiological assays. A revision of present biological standard doses for cannabis preparations is also suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 302.

CANTHARIS.

Éwe, George E.: Chinese cantharidis (*Mylabris cichorii*) is stated to be a worthy candidate for admission to the U. S. P. Data are given relative to its cantharidin content and to its effectiveness as a blister.—J. Am. Pharm. Assoc. 1920, v. 9, p. 257–263.

Gane, E. H.: It is suggested that cantharidin be substituted for cantharides in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gadamer, J.: Studies on the constitution of cantharidin. IX. Canthroylic acid.—Arch. Pharm. 1920, v. 258, p. 171–182.

Kilmer and Du Bois: Data are given showing the results obtained in the assay of cantharides by the U. S. P. method and Baudin's method as modified by the author. Definite recommendations are made for the revision of the U. S. P. method, which gives low results for both combined and free cantharidin.—Proc. Am. Drug Mfg. Assoc. 1920, p. 268–271.

Éwe, George E.: In an article on the standardization of veterinary blistering ointments data are given showing the cantharidin content of a number of samples of Russian and Chinese cantharides.—Mulford Vet. Bull. 1920, v. 9, p. 45–47.

Cotte, J.: Data are given showing the cantharidin content of *Mylabris quadripunctata* and *M. variabilis*.—Compt. rend. soc. biol. 1920, v. 83, p. 107.

Maldonado, A.: A species of beetle native to Peru, *Pseudomeloe escomeli*, found on the flowers of *Lycopersicum peruvianum* and of *Eucelia canescens*, is stated to have properties similar to that of cantharides. The identity of the vesicating principle has not been determined, although it is thought to be cantharidin.—Bol. farm. de Lima, 1919, No. 15, through Répert. pharm. 1920, v. 32, p. 55–56.

Éwe, George E.: Of 3 samples of Spanish cantharides examined, 2 were above and 1 was below the U. S. P. standard of 0.6 per cent cantharidin. Of 5 samples of Chinese cantharides, 4 were above and 1 was below the U. S. P. standard for cantharidin.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

CAPSICUM.

Rusby, H. H.: The use of the name "*Capsicum frutescens* L." constitutes an acceptance of the view that there are but two species of capsicum, namely, *C. frutescens* and *C. annum*. It is exceedingly doubtful whether this is true. If we accept this classification, the name "*C. frutescens*" would necessarily include a great number of varieties, only a very few of which are capable of meeting the requirements for medicinal use. Either "*Capsicum minimum*" or "*Capsicum fastigiatum*" would be acceptable. The latter has priority and is about as good as the former.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

Dohme, A. R. L.: It is suggested that the percentage of ether-soluble oleoresin content of capsicum should be reduced, as it is almost impossible to obtain capsicum with 15 per cent of oleoresin, the average yield in oleoresin being about 12 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Nelson, E. K.: Further proof of the structure of capsaicin, the pungent principle of capsicum, is based on its generation from synthetic vanillyl amine and the decanoic acid previously isolated from capsaicin.—J. Am. Chem. Soc. 1920, v. 42, p. 597–599.

CARAMEL, N. F.

Roberts, J. G.: A shipment of caramel examined was not of N. F. quality in several particulars. Its specific gravity was only 1.195 instead of 1.35; it had a fermented odor; was devoid of bitter taste and did not produce a clear solution with water in the proportion of 1:1000 and precipitated in this solution when exposed to sunlight for six hours.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

CARBO LIGNI.

Hommell, P. E.: Wood charcoal should be deleted from the U. S. P., its use as an absorbent in digestive fermentation being now supplanted by other agents devoid of gritty consistency and unsightly appearance.—Proc. New Jersey Pharm. Assoc. 1920, p. 40; see also E. H. Gane, J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Liesegang, Raphael Ed.: A review of the literature on charcoal intended for adsorption purposes.—Chem.-Ztg. 1920, v. 44, p. 89–90.

Bock, Joseph C.: A study of decolorizing carbon. Analytical data are presented.—J. Am. Chem. Soc. 1920, v. 42, p. 1564–1569.

Scheringer, K.: Notes on the adsorptive power of different varieties of charcoal.—Pharm. Weekblad, 1920, v. 57, p. 348–350.

van Os, D.: A description of a method for the evaluation of charcoal intended for decolorizing purposes. Analytical data obtained by the use of the method are presented.—Pharm. Weekblad, 1920, v. 57, p. 693–696.

Michaelis, L., and Rona, P.: An enumeration of precautions to be observed in the determination of the adsorptive power of charcoal by means of methylene blue solution.—Biochem. Ztschr. 1920, v. 102, p. 268.

Cude, H. E., and Hulett, G. A.: Data relative to the determination of the moisture and gas content and density of charcoals are presented.—J. Am. Chem. Soc. 1920, v. 42, p. 391–401.

Keefer, Norman D.: Some experimental notes on the adsorption of pepsin by charcoal are presented.—Am. J. Pharm. 1920, v. 92, p. 160–162.

CARDAMOMI SEMEN.

Anon.: Statistics are given on the sources of supply and on the importation of cardamom seed for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 40–41.

Rusby, H. H.: The description of cardamom seed given in the U. S. P., IX, does not sufficiently exclude the so-called camphor seeds, which have always been a common and abundant admixture in objectionable shipments of cardamom seed. The author frequently rejects lots containing as much as 50 per cent of this adulterant, but one would hardly be able to do so by depending on the U. S. P. description.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

CARMINUM, N. F.

Schamelhout, A.: A tentative monograph on carmine, proposed for the Belgian national formulary, is submitted.—J. pharm. Belg. 1920, v. 2, p. 913.

Dimroth, O., and Kämmerer, H.: A report of researches on the constitution of carminic acid.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 471.

CARUM.

Viehoever, Arno: The presence of a fungous growth, resembling closely the sclerotium known as "ergot" has been reported in caraway (*Carum carvi*).—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

CARYOPHYLLUS.

Linde, O.: It is suggested that the Ph. Germ. title for cloves be changed to "Flores Caryophylli" which is the name given in the Ph. Austr.—Apoth.-Ztg. 1920, v. 35, p. 450.

Zimmermann, W.: The presence of stems, peduncles, and gravel are reported in samples of cloves examined.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 44.

CASCARA SAGRADA.

Rushby, H. H.: By the unfortunate change in the title of Cascara Sagrada a purely Castilian name has been made to stand as "the official Latin title." Although "Cascara Sagrada" might well stand as the official English title, since it has become fully anglicized by its general use, it seems to be a decided linguistic error to make it stand as the Latin title.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

Eli Lilly & Co.: One bag, purporting to be cascara sagrada, was not the genuine drug and another bag in a later shipment was badly decomposed. Several carload lots have contained bags of *Berberis aquifolium*.—Proc. N. W. D. A. 1920, p. 358.

Éwe, George E.: One lot out of very many lots of cascara sagrada examined was *Rhamnus californica* instead of *Rhamnus purshiana*.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

CASCARILLA, N. F.

Kunz-Krause, H.: Cascarilla bark is found to contain about 6 per cent of moisture, and to yield 11 per cent of ash. The ash is composed of the chlorides, sulphates, carbonates and phosphates of potassium, calcium, aluminum and iron.—Arch. Pharm. 1920, v. 258, p. 183–200.

CASSIA FISTULA, N. F.

Grant, E. H.: A description is given of a new test for cassia fistula.—J. Am. Pharm. Assoc. 1920, v. 9, p. 765.

CENTAURIUM, N. F.

Farwell, Oliver A.: The adulteration of American centaury with *Rhexia virginica* L. and *Stylosanthes biflora* (Linn.) B. S. P. is reported.—Bull. Pharm. 1920, v. 34, p. 238.

CERA FLAVA.

Anon.: Simple methods for the examination of beeswax are described.—Chem. Umschau, 1920, v. 27, p. 135.

Fabris: A test for the purity of beeswax consists in determining the viscosity of a 10 per cent solution of the wax in nitro-benzene. Data showing this constant for different waxes are given.—Chem. Umschau, 1919, v. 26, p. 177, through Pharm. Zentralh. 1920, v. 61, p. 273.

Gascard, Albert: From an investigation it is concluded that the acid occuring in beeswax and designated cerotic acid is not identical with cerotic acid, $C_{27}H_{54}O_2$, found in Chinese wax.—Compt. rend. acad. sc. 1920, v. 170, p. 1326–1328.

Eli Lilly & Co.: One shipment of beeswax examined was adulterated with ceresin or paraffin.—Proc. N. W. D. A. 1920, p. 359.

CERATA.

Hommell, P. E.: The cerate of lead subacetate could advantageously be returned to the U. S. P., as many practitioners will find it valuable as an astringent and protective. The resin cerate should be placed in the N. F.—Proc. New Jersey Pharm. Assoc. 1920, p. 44.

CERATUM CANTHARIDIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: If practicable, a physiological test for the activity of cantharides cerate should be introduced in the next U. S. P.—Am. J. Pharm. 1920, v. 92, p. 557.

CERATUM RESINÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: There should be a slight change in the U. S. P. directions for rosin cerate so that the rosin will not separate during cooling. It would be better to direct that when the melted mixture is strained, it be stirred continuously until it starts to congeal.—Am. J. Pharm. 1920, v. 92, p. 557.

CEREVISIÆ FERMENTUM COMPRESSUM, N. F.

Gane, E. H.: It is suggested that compressed yeast be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

MacLean, I. M., and Thomas, E. M.: Yeast fat is found to contain palmitic, oleic and linoleic, and probably lauric and arachidic acids, also a sterol identical with ergosterol isolated from ergot.—Biochem. J. 1920, v. 14, p. 483–493.

CERII OXALAS.

Gane, E. H.: It is recommended that cerium oxalate be deleted from the U. S. P. because of infrequent use at the present time.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

CETACEUM.

Bohrisch, P., and Kurschner, F.: A comprehensive article dealing with the testing of spermaceti for purity. Data are given in the form of tables showing the physical and chemical constants of pure and commercial samples.—Pharm. Zentralh. 1920, v. 61, p. 703–710, 719–726, 733–737.

CHIMAPHILA, N. F.

Viehoever, Arno: As a result of surveys of some of the crude drugs on the market, it was found that *Chimaphila maculata* is often substituted for pipsissewa (*Chimaphila umbellata*).—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 153.

CHIONANTHUS, N. F.

Lampa, Robert R.: The average ash content of fringe tree bark found on the market is 10.75 per cent. The N. F. allows not over 5 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Roberts, J. G.: One shipment of fringe tree bark of very undesirable quality examined was rejected, as it contained an excess of 35 per cent of foreign matter, consisting largely of stem bark and wood. The N. F. only permits 8 per cent of foreign matter.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

CHLORALUM HYDRATUM.

Anon.: According to the new supplement to the Ph. Fr., chloral hydrate is permitted to be very slightly acid to litmus.—Chem. & Drug. 1920, v. 92, p. 456.

Scoville, Wilbur L.: The propriety of using the term chloralum in preference to the term chloralis is questioned.—J. Am. Pharm. Assoc. 1920, v. 9, p. 281.

Zimmermann, W.: The occurrence of reddish-brown crystals throughout the entire mass of samples of chloral hydrate are reported. This deterioration of the product is stated to be due to the combined action of light and the glass walls of the container.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 44.

CHLOROFORMUM.

Norsk Alkali A. S.: Norwegian patent No. 30590, 1918, describes the manufacture of chloroform by treatment of mono- or dichloracetaldehyde or a mixture of both with an alkaline solution of hypochlorites.—Chem.-Ztg. Beil. 1920, v. 44, p. 195.

Dey, A. J.: A sample of chloroform made from by-product alcohol obtained from coke-oven gas gave a strong hydrocarbon odor upon evaporation. It rapidly decolorized potassium permanganate solution, but after treatment with sulphuric acid the color was permanent for more than 12 hours.—Pharm. J. 1920, v. 104, p. 302.

Dulière, Walter: A sample of chloroform sold as *chloroforme ordinaire* was found to consist almost entirely of carbon tetrachloride.—J. Am. Pharm. Assoc. 1920, v. 9, p. 474.

Anon.: Observations by F. Dietz on the examination of chloroform.—Boll. chim.-farm. 1920, v. 59, p. 416–417.

Sasse, O.: Chloroform is assayed by hydrolyzing with alcoholic KOH to KCl and $KHCO_2$ and titrating the resulting chloride in the usual way.—Pharm. Ztg. 1920, v. 65, p. 559.

Vorländer, D.: The presence of hydrochloric acid in chloroform is detected by means of the violet color produced by p-dimethylaminoazobenzene.—Ber. deutsch. pharm. Gesellsch. 1918, v. 28, p. 337.

Schlicht, A., and Austen, Walter: A method for the estimation of chloroform and other volatile substances in admixture with alcohol consists in diluting 5 cubic centimeters of the mixture with 200 cubic centimeters of water and shaking with 60 cubic centimenters of ether. The ethereal layer is separated and its specific gravity determined. An increase of 0.0001 in the specific gravity corresponds to 0.1786 gram of chloroform in the original mixture.—Ztschr. öffentl. Chem. 1920, v. 26, p. 55–57; Chem. Zentralbl. 1920, v. 91, part 4, p. 110.

CHONDRUS.

Linde, O.: It is recommended that a short description of the anatomical structure be included in the monograph for chondrus in the new edition of the Ph. Germ.—Apoth.-Ztg. 1920, v. 35, p. 450.

CHROMII TRIOXIDUM.

Kolthoff, I. M.: A report of studies on the iodimetric determination of chromic acid.—Ztschr. anal. Chem. 1920, v. 59, p. 401–415.

Groeger, M.: A description of a procedure for the iodimetric determination of chromic acid in lead chromates.—Ztschr. anorg. Chem. 1919, v. 108, p. 267–272.

CHRYSAROBINUM.

Rusby, H. H.: The plant yielding chrysarobin should be referred to the family *Papilionaceæ*.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

CIMICIFUGA.

Hommell, P. E.: Cimicifuga should be transferred to the N. F., as this drug and its preparations are no longer regarded as valuable remedial agents.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

CINCHONA.

Anon.: Statistics are given on the sources of supply and on the importation of cinchona bark for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 32–35.

Fowler, John A.: A brief description of the cultivation of the cinchona tree in Dutch East Indies, with a table showing the exports of quinine and cinchona bark during the years 1913 and 1916 to 1919.—Com. Rep. 1920, No. 223, p. 1374.

Loble: A concise statement of the adaptation of different varieties of cinchona to cultural conditions in Java, methods of propagation, planting, and care of plantations.—Bul. Écon. Indochine, 1919, v. 22, p. 761–764, through Exper. Sta. Record, 1920, v. 42, p. 537.

Anon.: A report of work done at the Java Cinchona Experiment Station in 1916 and 1917.—Bull. Agric. Intell. 1920, v. 10, p. 905.

Anon.: A report of the production of cinchona in Madras for the year 1918–19.—Annual Report of the Government Cinchona Department, Madras. 1918–19, through Chem. & Drug. 1920, v. 93, p. 1345.

Anon.: Data are presented showing the moisture and quinine content of cinchona bark from East Africa and the Cameroons.—Bull. Imp. Inst. 1920, v. 18, p. 22–25.

Howard, Bernard F. and Chick, Oliver: Data obtained in the analysis of some recent samples of cinchona bark (Grey bark of Huanuco, Peru) are presented.—Pharm. J. 1920, v. 105, p. 79–81; Chem. & Drug. 1920, v. 93, p. 82–84.

Auenmüller: Results obtained in an effort to determine the best method for the assay of cinchona and its preparations are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 467.

Austin, F. J. and Dohme, A. R. L.: A comparison of the U. S. P. and Fromme methods for the assay of cinchona. The Fromme method was found to give more concordant results gravimetrically than the U. S. P. method. It is also simpler and requires less time. Titration according to the U. S. P. is difficult because the solution is often highly colored.—Proc. Am. Drug Mfg. Assoc. 1920, p. 265–266.

Funck, Erich: The method of Keller and Fromme for the determination of the alkaloidal content of cinchona bark is stated to be simpler, more rapid, and just as accurate as the method given in the Ph. Germ.—Apoth.-Ztg. 1920, v. 35, p. 61.

Lehmann, F.: Experimental notes on the assay of cinchona. Of the two methods in use that with dilute acid probably includes all the crystalline cinchona alkaloids; that in which alkalies and organic solvents are used gives a less pure alkaloid but a larger yield. A modification of the method given in the Swiss Pharmacopœia is described.—Arch. Pharm. 1920, v. 258, p. 85; Pharm. J. 1920, v. 105, p. 287.

Lehmann, F., and Palm, P. H.: A description of a modified Ph. Germ. method for the determination of the alkaloids in cinchona bark. Comparative data showing the results obtained by the modified method and that of the German Pharmacopœia are presented.—Arch. Pharm. 1915, v. 253, p. 393, through Pharm. Zentralh. 1920, v. 61, p. 81–82.

Bamberger, C.: A description of a new method for the determination of cinchona alkaloids. The chloroformic extract is clarified by agitation with plaster of Paris and the excess of acid in the aqueous extract is finally titrated with N/10 potassium hydroxide using methyl red as indicator.—Pharm. Zentralh. 1920, v. 60, p. 257–259, 267–270; Chem.-Ztg. 1920, v. 44, p. 223.

Giemsa, G., and Halberkann, J.: Researches on the cinchona alkaloids. III. Nitro and amino sulphonic acids, nitro and amino bases of some hydrogenated cinchona alkaloids.—Ber. deutsch. chem. Gesellsch. 1920, v. 53B, p. 732–750.

Jacobs, Walter A., and Heidelberger, Michael: Syntheses in the cinchona series. IV. The preparation and properties of the nitro- and amino-derivatives of the dinitro alkaloids. V. The preparation and properties of dihydro-desoxy-quinine and dihydro-desoxy-quinidine and their derivatives.—J. Am. Chem. Soc. 1920, v. 42, p. 1481–1489 and 1489–1502.

Roberts, J. G.: One sample of yellow cinchona examined assayed only 4.61 per cent of total alkaloids instead of "not less than 5 per cent" as required by the U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

Ewe, George E.: Of 14 samples of yellow cinchona examined, 10 were above and 4 were below the U. S. P. standard of 5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Scoville: A study of the influence of hydrochloric acid on cinchona preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 864–868.

CINCHONA RUBRA.

Anon.: Data are given showing the alkaloidal content of samples of red cinchona bark collected in Cordoba, State of Vera Cruz, Mexico. A sample assayed 5.133 per cent of total alkaloids which included 2.108 per cent of quinine.—Bull. Agric. Intell. 1920, v. 10, p. 1146.

Eli Lilly & Company: One bag of red cinchona examined consisted largely of siftings which assayed far below the minimum requirements.—Proc. N. W. D. A. 1920, p. 358.

Ewe, George E.: Of 12 samples of red cinchona examined, 10 were above and 2 were below the U. S. P. standard of 5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

CINNAMOMUM SAIGONICUM.

Lautenschläger, L.: A method for the estimation of volatile oil in cinnamon bark consists in distilling a weighed amount of the bark with steam, adding hydrazine sulphate, subsequently standard iodine solution, and finally titrating the excess of iodine with sodium thiosulphate. Arch. Pharm. 1918, v. 256, p. 87, through Pharm. Zentralh. 1920, v. 61, p. 130.

COCA (NONOFFICIAL).

Anon.: Statistics are given on the sources of supply and on the importation of coca leaves for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 22–24.

COCAINA.

Anon.: Statistics are given on the sources of supply and on the importation of cocaine for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 22–24.

Rusby, H. H.: Our organic chemists as well as our botanists should certainly do something to improve the title cocaina. Much cocaine is made by artificial changes in the alkaloid truxilline after its extraction from truxillococa. Therefore it can scarcely be defined as "obtained from" that leaf. Even if it were, the term "variety" can not be correctly applied to the Truxillo leaf. The author has fully established the fact that this is a distinct species and has so described it, with illustrations. He has also shown that no other name can properly be applied to it than "*Erythroxylon truxillense*."—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Reutter de Rosemont, L.: Twelve methods for the purification of crude cocaine are given. The methods involving the use of acetic or betanaphthalene sulphonic acid are recommended as being the most satisfactory.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 225–229.

Guerbet, Marcel: A description of a reaction of benzoic acid based upon diazotisation, and an account of the application of this reaction to the toxicological detection of atropine, cocaine, and stovaine.—J. pharm. et chim. 1920, v. 22, p. 321–323.

Hardy, Paul: An investigation has led to the conclusion that cocaine does not give the Vitali reaction. Isatropylcocaine, however, gives a positive reaction and Vitali's test may, therefore, be employed for detecting the presence of this impurity in cocaine.—J. pharm. et chim. 1920, v. 24, p. 325–330.

Manseau, A.: A method for differentiating between cocaine and stovaine is based on the fact that stovaine in very dilute solutions is precipitated by weak alkalies such as sodium borate or the alkaline phosphates.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 183–184.

Heiduschka, A., and Wolf, L.: An account of the application of the authors' method for the quantitative determination of methylalcohol to the quantitative determination of cocaine in aqueous solution.—Pharm. Zentralh. 1920, v. 61, p. 362–363.

Rippel, A.: Data are given showing the influence of the reaction of cocaine solutions on their stability.—Arch. Pharm. 1920, v. 258, p. 287–295.

von Braun, Julius, and Räth, Kurt: A continuation of a study of the effect of changes in structure on the physiological action of compounds in the atropine and cocaine series.—Ber. deutsch. chem. Gesellsch. 1920, v. 53B, p. 601–614.

Mills, C. A.: Cocaine intoxication in the rabbit. No cumulative effects were observed. The sensitizing effect on the iris lasts for 25 hours.—J. Pharmacol. & Exper. Therap. 1919, v. 14, p. 355.

Klein, Karel: A study of the antagonism of cocaine and strophanthin.—J. Méd. tchèque, 1919, v. 58, p. 877, through J. physiol. et path. gén. 1920, v. 18, p. 1238.

LOCAL ANESTHETICS (NONOFFICIAL).

Barbour, Henry G.: A brief history, with descriptions, of some local anesthetics, especially cocaine and its synthetic substitutes.—Science, 1920, v. 51, p. 497–504.

Cano, José M., and Ranedo, José: A study of the influence of the acid radical on the anesthetic properties of many alcohols. The anesthetic properties of the hydrochlorides of various esters of diethylamin-dimethylethyl-carbinol.—Anales soc. española fis. quim. 1920, v. 18, p. 184–206.

Hirschfelder, A. D., et al.: A report of a study of the local anesthetic action of saligenin and other phenyl carbinols.—J. Pharm. & Exper. Therap. 1920, v. 15, p. 261–270; Science, 1920, v. 51, p. 21.

Hjort, Axel M., and Kaufmann, Charles E.: From the results of an investigation, it is concluded that di-phenyl-methyl-carbinol is a more potent anesthetic on the rabbit cornea and the human skin than either its isomer, rose oil, or their homologue benzyl alcohol, but not in proportion to its greater toxic action.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 129–134; Proc. Soc. Exper. Biol. & Med. 1920, v. 17, p. 79–80.

Macht, David I., and Shohl, Alfred T.: An investigation of the stability of benzyl alcohol solutions. It is suggested that the best method of preserving benzyl alcohol solutions is to prepare such solutions from benzyl alcohol free from benzaldehyde, and to seal the same, after the addition of a buffer solution, in hard glass ampoules.—J. Pharmacol. & Exper. Therap. 1920, v. 16, p. 61–69.

Jacobson, J.: A study of the action of benzyl alcohol on albuminoids and certain ferments, such as pepsin, pancreatin, lactic acid ferment, and the ferments of beer.—Compt. rend. soc. biol. 1920, v. 83, p. 225.

Anon.: The requirements for novocaine as given in the new supplement of the Ph. Fr. are stated.—Chem. & Drug. 1920, v. 92, p. 456.

Kamm, O.: An investigation of the relationship between chemical constitution and physiological action in local anesthetics. I. Homologues of procaine. γ-diethylaminopropyl-p-aminobenzoate is found to be slightly more toxic, but considerably more effective as a surface anesthetic than procaine. —J. Am. Chem. Soc. 1920, v. 42, p. 1030–1033.

Guptill, Arthur E.: The solution of novocaine, which is used for the production of infiltration anesthesia, may act as an irritant to the skin if brought in contact with the latter. Characteristic lesions are produced.—Dental Cosmos, 1920, v. 62, p. 1460–1461.

Beach, Wm. M.: Apothesine is reported to be useful and satisfactory as a local anesthetic in rectal surgery.—New York M. J. 1920, v. 111, p. 436.

Picard, H.: Infiltration anesthesia with 0.2 per cent eucupine dihydrochloride is stated to be very satisfactory and to endure much longer than novocaine anesthesia.—Münch. med. Wchnschr. 1920, v. 67, p. 808–810.

Uyeda, K.: A study of the changes in peripheral nerves caused by local anesthetics. Novocaine produced the least marked changes. Cocaine produced the most marked changes in the endothelial cells.—Japanese Med. Lit. 1920, v. 5, p. 33.

Sollmann, T.: From the results of experiments, it is concluded that there is no parallelism between the toxicity of local anesthetics for earthworms and for mammals.—J. Pharmacol. & Exper. Therap. 1919, v. 14, p. 319–322.

Mayer, Emil et al.: A report of an investigation to determine the advantages and disadvantages of the various local anesthetics in nose and throat work.—Rep. Therap. Res. Com. 1920, v. 9, p. 162–193.

Macht, David I. et al.: A study of the antiseptic action of certain local anesthetics against *Staphylococcus aureus*, *Bacterium coli* and *Gonococcus*.—Rep. Therap. Res. Com. 1920, v. 9, p. 242–256; J. Am. M. Assoc. 1920, v. 75, p. 1160.

Anon.: A review of a book on local anesthesia by Heinrich Braun, entitled *Die örtliche Betäubung, ihre wissenschaftlichen Grundlagen und praktische Anwendung*.—New York M. J. 1920, v. 112, p. 230.

COCAINÆ HYDROCHLORIDUM.

Berg, Frantz F.: Because of the fact that the U. S. P. does not give a purity rubric for cocaine hydrochloride, the purity of the commercial product varies to a considerable extent. It is therefore recommended that an assay process be given in the new U. S. P. for this product and that an effort be made to determine whether or not the melting point as given in the present edition is correct.—J. Am. Pharm. Assoc. 1920, v. 9, p. 773.

Éwe, George E.: A new test for cocaine hydrochloride is based on the odor resulting from ignition. The odor resembles that given by atropine or one of its salts when heated with sulphuric acid as directed in the U. S. P., VIII, for the identification of atropine.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1180.

Funck, Erich: Because of the fact that cocaine hydrochloride is sometimes adulterated with sodium salicylate it is recommended that a test for the detection of the latter be given in the Ph. Germ.-Apoth.-Ztg. 1920, v. 35, p. 61.

Merck, E.: Attention is directed to the adulteration of cocaine hydrochloride. Some of the samples examined consisted almost entirely of magnesium sulphate, or calcium carbonate and did not contain even a trace of cocaine.—Pharm. Zentralh. 1920, v. 61, p. 80–81.

CODEINA.

Myers, Harold B.: It is stated that it is confusing and inconsistent to list methyl-morphine under the heading codeine and to retain the scientific name for diacetyl-morphine.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Dohme, A. R. L.: It is suggested that an assay process be given in the U. S. P. for codeine and its sulphate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Freund, Martin: A report of researches on the chemical constitution of codeine.—J. prakt. Chem. 1920, v. 101, p. 1–37.

Mannich, C. and Lowenheim, H.: The properties of two new reduction products of codeine (dihydro-codeine and dioxytetrahydro-codeine) are described.—Arch. Pharm. 1920, v. 258, p. 295–316.

Boissonnas, L.: A report of a case of poisoning in a three-year-old child following ingestion of 0.04 g. of codeine. The literature on codeine poisoning is reviewed.—Presse Médicale, 1920, v. 28, p. 290–291; Schweiz. Apoth.-Ztg. 1920, v. 58, p. 125–129.

CODEINÆ PHOSPHAS.

H. M.: It is recommended that the moisture requirement for codeine phosphate be omitted from the new edition of the Ph. Germ.-Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

COFFEA TOSTA, N. F.

Vautier, E.: Two methods for the quantitative determination of caffeine in coffee mixtures, coffee substitute mixtures, and caffeine-free coffee, are described.—Mitt. a. d. Geb. d. Lebensm.-Unters. u. Hyg. 1919, v. 10, through Zentralbl. Biochem. u. Biophys. 1920, v. 22, p. 392–393.

COLCHICI CORMUS.

Hommell, P. E.: Both colchicum corm and colchicum seed should be retained in the U. S. P., as one is as good as the other. Preparations of the seed seem to be more often prescribed.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Éwe, George E.: Of 7 samples of colchicum corm examined, 3 were above and 4 were below the U. S. P. standard of 0.35 per cent colchicine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Roberts, J. G.: A fifteen-bale lot of colchicum root examined assayed only 0.24 per cent of colchicine instead of " not less than 0.35 per cent," as required by the U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

COLCHICI SEMEN.

Grimme, Clemens: Colchicine was found to be present in colchicum seed in amounts varying from 0.11 to 0.52 per cent. The smaller seeds showed the higher alkaloidal content. The actual amount present was 1 to 25 per cent greater than was indicated by physiological activity. The seeds also contained a fixed oil in quantities varying from 6.6 to 8.4 per cent.—Pharm. Zentralh. 1920, v. 61, p. 521–524.

H. M.: It is recommended that the new edition of the Ph. Germ. give an assay process for the determination of colchicine in colchicum seed.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Éwe, George E.: Of 8 samples of colchicum seed examined, 5 were above and 3 were below the U. S. P. standard of 0.45 per cent colchicine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Roberts, J. G.: One lot of colchicum seed examined assayed 0.70 per cent total alkaloids in spite of the fact that its appearance was very dull and abnormal, many of the individual seeds, upon close examination, being covered with mold. The U. S. P. requires " not less than 0.45 per cent."—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

COLCHICINA.

Lipps, H.: Pharmacological studies in the colchicine series. Colchicine is regarded as a capillary poison. Details are given of its action in frogs and cats.—Arch. exper. Path. u. Pharmakol. 1920, v. 85, p. 235–255.

COLLODIUM.

Keulemans: A note on the preparation of collodion advises the drying of the cotton by washing with alcohol previous to effecting solution.—Pharm. Weekblad, 1920, v. 57, p. 677–678.

COLLODIUM CANTHARIDATUM.

Linde, O.: Cantharidal collodion made according to the Ph. Germ. varies in effectiveness due to the variation in the ratio of free and combined cantharidin present in the finished preparation. To insure uniformity, the use of cantharidin in place of cantharides is recommended.—Apoth.-Ztg. 1920, v. 35, p. 450.

COLLODIUM STYPTICUM, N. F.

Lascoff, J. L.: It is recommended that styptic collodion be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

COLLODIUM TIGLI, N. F.

Lascoff, J. L.: It is recommended that croton oil collodion be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

CONIUM, N. F.

Éwe, George E.: One lot of conium leaves examined contained an excess of stems and foreign matter.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

Éwe, George E.: Of 13 samples of conium seed examined, 12 were above and 1 was below the N. F. standard of 0.5 per cent coniine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

COPAIBA.

Rusby :, H. H.: The plant yielding copaiba should be referred to the family *Cæsalpiniaceæ*. It has recently been claimed on good authority that African copaiba imported since the publication of the present edition of the U. S. P. is of good quality.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Anon.: Statistics are given on the sources of supply and on the importation of copaiba balsam for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 29–30.

Berg, Frantz F.: The U. S. P. test for the presence of Gurjun balsam in copaiba is stated not to be reliable.—J. Am. Pharm. Assoc. 1920, v. 9, p. 774.

van Itallie, L.: Constants and tests for copaiba which should be included in the Ph. Ndl. are presented. An abstract.—Chem. & Drug. 1920, v. 93, p. 1134.

H. M.: It is recommended that a crystal of sodium nitrite be used in place of two drops of fresh sodium nitrite solution in the Ph. Germ. test for the presence of Gurjun balsam in copaiba.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

Utz: A note on the use of zinc chloride as a reagent for testing the purity of balsams. An abstract.—Boll. chim.-farm. 1920, v. 59, p. 78.

Roberts, J. G.: A sample of copaiba examined did not comply with the U. S. P. requirements in several particulars. Its specific gravity was only .9227, whereas the U. S. P. requires .940 to .995. It had an acid value of 20.5, which is much below the standard of 28 to 95. It had every appearance of containing paraffin oil, as it gave positive results with the U. S. P. test.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

CORNUS, N. F.

Editorial: A short description of the *Flowering Dogwood* and an account of the use of its bark in medicine.—Eclectic M. J. 1920, v. 80, p. 42–43.

CORYDALIS, N. F.

Asahina, Y., and Motigase, S.: The alkaloids of Japanese corydalis bulb have been separated into nonphenolic and phenolic groups. From the former 0.1 per cent of protopine was isolated and from the latter 0.1 per cent of bulbocapnine and a small amount of another base melting at 175° C.—J. Pharm. Soc. Japan, 1920, No. 463, p. 766–772.

COTARNINÆ HYDROCHLORIDUM.

Gane, E. H.: It is recommended that cotarnine hydrochloride be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Cotarnine hydrochloride should be retained in the U. S. P. as it is a valuable hemostatic and sedative.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

COUMARINUM, N. F.

Guérin, P., and Goris, A.: Attention is called to a new source of coumarin, namely, the leaves of *Melittis melissophyllium*.—Compt. rend. acad. sc. 1920, v. 170, p. 1067–1068.

Geret, L.: A method for the detection of coumarin depends on the fact that it reacts with a solution of iodine and potassium iodide to form greenish-black crystals with a metallic luster.—Mitt. Lebensm. Hyg. 1920, v. 11, p. 69–71.

DeGroot, M.: A method for the determination of the solubility of vanillin and coumarin in glycerin solutions is described. Data are given showing the solubilities of these substances over a range of 0.2 to 60° C. for solutions containing up to 50 per cent of glycerin.—Am. Perf. 1920, v. 15, p. 372–374.

Fromherz, K.: Briefly reported studies of the pharmacological action of some reduction products (hydrocoumaric acid, melilotol, o-hydroxyphenylpropyl alcohol and chromane) of coumarin.—Biochem. Ztschr. 1920, v. 105, p. 141–144.

CREOSOTI CARBONAS.

Eli Lilly & Co.: One lot, purporting to be creosote carbonate, proved, upon examination, to be creosote.—Proc. N. W. D. A. 1920, p. 359.

CRESOL.

Hamilton, Herbert C.: A description of a method for the production of purified cresol.—J. Ind. & Eng. Chem. 1920, v. 12, p. 50–52.

York, E. M.: Exception is taken to some statements of H. C. Hamilton, notably those relating to the physical and bactericidal properties of purified cresol. A good "*meta-para*" product, approaching the U. S. P. grade, is stated to be preferable to a "trikresol" containing the isomers as they come.—J. Ind. & Eng. Chem. 1920, v. 12, p. 296.

Berg, Frantz F.: The solubility tests of the U. S. P. for cresol are criticized on the ground that they are not correct indices of the purity of the present-day product.—J. Am. Pharm. Assoc. 1920, v. 9, p. 774.

Fox, J. J., and Barker, M. F.: An investigation of methods for the analysis of cresol and a study of the composition of the commercial article.—J. Soc. Chem. Ind. 1920, v. 39, p. 169–172T.

Decker, C. C.: Three lots of cresol examined were below the U. S. P. requirements in boiling range.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

CROCUS, N. F.

Baxter, Frank H.: A description of the cultivation of saffron in Macedonia. Most of the crop is exported to France.—Com. Rep. 1920, No. 194, p. 844–845.

Anon.: An account of how saffron is packed and shipped.—Drug & Chem. Markets, 1920, v. 7, p. 660.

Morris, Leland B.: It is reported that the saffron crop of Macedonia for the year will not exceed 150 to 300 kilos, which is considerably below normal.—Com. Rep. 1920, No. 168, p. 365.

Anon.: In two instances importations of saffron examined were found to be adulterated with the flowering tops of cotton or Scotch thistle artificially dyed with tartrazine and commercial ponceau 2R, and to be weighted with potassium nitrate, borax, and glycerin.—S. R. A.-Chem. 1920, No. 26, p. 14.

CUBEBA.

Linde, O.: It is suggested that the title for cubeb given in the Ph. Germ. be changed to "Fructus Cubebae," which is the title used in the Ph. Austr. and the Ph. Helv.—Apoth.-Ztg. 1920, v. 35, p. 450.

Anon.: Examination of importations of cubebs has shown that in some instances the fruits of *Piper ribesioides* Wallr. were substituted for the true material.—S. R. A.-Chem. 1920, No. 26, p. 13–14.

Eli Lilly & Co.: One shipment of cubebs examined was adulterated up to about 15 per cent with another nonofficial species. Several other shipments have contained as high as 20 per cent of stems and other foreign matter.—Proc. N. W. D. A. 1920, p. 358.

Éwe, George E.: Two samples of cubeb berries examined were above the U. S. P. standard of 10 per cent volatile ether extractive.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

CUPRI SULPHAS.

H. M.: It is recommended that the requirements for copper sulphate in the new edition of the Ph. Germ. permit the presence of traces of iron.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

Webb, H.: Attention is called to the use of copper sulphate as a remedy for scabies. A 4 per cent solution is painted over the skin and allowed to dry on.—Prescriber, 1919, v. 13, p. 167.

DAMIANA, N. F.

Lampa, Robert R.: The average ash content of damiana found on the market is 12.85 per cent. The N. F. allows not over 10 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Riley, W. M.: Two lots of damiana examined contained excessive amounts of stems.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

DECOCTA.

Gane, E. H.: It is suggested that decoctions be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

DIACETYLMORPHINÆ HYDROCHLORIDUM.

Blair, Thomas S.: It is suggested that heroin be deleted from the U. S. P. as it has become a menace to society and everything possible should be done to remove the menace.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Éwe, Gorge E.: The U. S. P. statement that diacetylmorphine hydrochloride is "insoluble in chloroform at 25° C." is not strictly correct. It is suggested that the statement be altered to read "soluble in chloroform at 25° C."—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

DIASTASUM.

Waksman, Selman A.: A description of a method for measuring the starch liquefying power (amyloclastic action) of enzymes. A short history of experimental work along this line is given and the commonly used methods are discussed.—J. Am. Chem. Soc. 1920, v. 42, p. 293–299.

Rosenblum, Edward I.: Notes on the determination of diastatic activity, with special reference to the effect of the hydrogen-ion concentration of the malt extract and starch used. With diastase purified by Wroblewski's method, and with soluble starch, the highest activity was found at a reaction slightly acid to methyl red and alkaline to methyl orange.—J. Soc. Chem. Ind. 1920, v. 39, p. 311–313T.

Oshima, Kokichi: A criticism of the Lintner method for the estimation of the saccharogenic power of diastatic preparations, with a description of a new method.—J. Ind. & Eng. Chem. 1920, v. 12, p. 991–993.

Adams, Edwin W.: A method for evaluating diastase for use in textile work is described. The method consists in measuring by means of Fehling's solution the amount of sugar formed from starch.—Chem.-Analyst, 1920, No. 31, p. 10–11.

DIGITALIS.

Dezani, S.: Attention is called to some difficulties in the customary pharmacognostical determination of digitalis and coca leaves.—Giorn. Farm. Chim. 1919, v. 68, p. 85–89, through Chem. Zentralbl. 1920, v. 91, part 2, p. 675.

Guérin, Paul: Attention is directed to the fact that digitalis received from Spain consists of *Digitalis thapsi* instead of *Digitalis purpurea*. The pharmacognostical characteristics of each are described.—Union pharm. June, 1919, through Répert. pharm. 1920, v. 32, p. 14–15.

Blaringham, L.: Notes on the heredity and nature of the peloria of *Digitalis purpurea* L.—Compt. rend. acad. sc. 1920, v. 171, p. 252–254.

Wasicky, R.: An address describing cultural and biological experiments with digitalis. It is stated that the glucosides occur in the mesophyll and that the afternoon leaves have a higher glucoside content than those picked in the morning. It is further stated that first and second year plants are equally effective and that there is no difference in the activity of wild and cultivated plants so far as *Digitalis purpurea* is concerned.—Pharm. Monatsh. 1920, v. 1, p. 169–175.

Gaglio, G.: A pharmacologic examination of cultivated and wild specimens of *Digitalis purpurea* has shown the former to be as potent as the latter.—Policlinico, Rome, 1920, v. 27, No. 3, p. 63, through J. Am. M. Assoc. 1920, v. 74, p. 922.

Meyer, Hans Horst: A short review of the pharmacology of digitalis substances. The leaves of *Digitalis grandiflora*, as well as those of *Digitalis purpurea*, are active and can be used for therapeutic purposes.—Wien. med. Wchnschr. v. 70, p. 11–19, through Chem. Zentralbl. 1920, v. 91, part 1, p. 763.

Nöther, Paul: A study of the activity of digitalis flowers. The results obtained indicate that digitalis flowers contain 0.7 per cent of active glucosides easily extracted by water and stable in aqueous solution.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 402–405.

Joachimoglu, G.: Data are presented showing that the leaves of 2-year-old digitalis plants are not in any way superior to leaves collected from plants 1 year old. It is, therefore, recommended that the specifications for digitalis given in the Ph. Germ. be changed.—Arch. Pharm. 1920, v. 258, p. 33–56; Apoth.-Ztg. 1920, v. 35, p. 146.

Augustine: A pharmacological investigation of the stability of digitalis leaves. Leaves which have been stored for different periods of time were tested by the frog-heart method and it was concluded that no appreciable deterioration takes place for several years.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 278–289.

Grönberg, M.: Notes on the conservation of digitalis. Digitalis leaves containing 5.6 per cent of water lost 27.4 per cent of their activity in eight months, while leaves containing 10.1 per cent of moisture lost 35 to 77 per cent of their activity in the same length of time. Digitalis leaves containing 1.3 per cent of moisture and preserved in well-stoppered bottles lost 7 to 14 per cent of their activity. The same material kept in tin or wooden boxes or cartons or in paper sacks lost 20 to 30 per cent of their activity. Leaves containing 1.2 per cent of moisture preserved in bottles exposed to the light lost 28 per cent of their activity in four months, while the same material kept in the dark lost only 7 to 9 per cent.—Finska Apothek. Tidskr. 1919, p. 162–163, through Schweiz. Apoth.-Ztg. 1920, v. 58, p. 261–262; Pharm. J. 1920, v. 105, p. 147.

Wester, D. H.: Data are given showing the manganese content of several species of digitalis obtained from different localities. The application of this data to the determination of species of digitalis is discussed. The manganese content of the leaves of *Digitalis purpurea* varies from 0.94 to 8.12 mgs. per 100 gms. of dried material.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 376–381.

Gane, E. H.: It is suggested that digitalin be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Kiliani, H.: A study of the digitalis constituents, with special reference to the hydrolysis of digitogenic acid, digitaligenin, and digitoxigenin.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 240–250.

Cloetta: A description of a new procedure for the preparation of pure crystalline digitoxin and a study of its decomposition products.—Arch. exper. Path. u. Pharmakol. 1920, v. 88, p. 113–128.

Schuursma, M. J. M.: Analytical data obtained in the examination of an adulterated sample of digalene are given.—Pharm. Weekblad, 1920, v. 57, p. 1086–1087.

Wischo, Fritz: An investigation of the method of Baljet for the identification of the digitalis glucosides. The reaction is stated to depend upon the sugar present (digitoxose) and is, therefore, not specific for these glucosides.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 189–191.

H. M.: It is recommended that the new edition of the Ph. Germ. include tests for the detection and determination of digitoxin in digitalis and its preparations.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Auenmüller: Results obtained in an effort to determine the best method for the assay of digitalis are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 465–466.

Anon.: A notice calls attention to an inaugural dissertation by F. Wolter on the evaluation of digitalis leaves by chemical methods.—Pharm. Weekblad, 1920, v. 57, p. 1486.

Anon.: A method for the determination of digitalin in digitalis leaves is described in detail.—Bull. sc. pharmacol. 1920, v. 27, part 1, p. 154–156.

Wulling, Frederick J.: It is suggested that the methods of physiological standardization of digitalis ought to be further studied with a view to the inclusion of a greater number of such standardizations in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303.

Sluijters, A. H.: A review of an inaugural dissertation dealing with the physiological standardization of digitalis by the cat method.—Pharm Weekblad, 1920, v. 57, p. 1487–1491.

Pittenger, P. S.: In the report of the committee on physiologic assaying of the American Pharmaceutical Association, recommendations are made for changes in the U. S. P. method for the assay of digitalis.—J. Am. Pharm. Assoc. 1920, v. 9, p. 617–618.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the U. S. P. method for the physiologic assay of digitalis.—Am. J. Pharm. 1920, v. 92, p. 647.

Colson, H. C., Jr.: It is suggested that under digitalis, strophanthus and squill, Houghton's 12-hour frog method be substituted for the one now recommended by the U. S. P., IX.—J. Am. Pharm. Assoc. 1920, v. 9, p. 303–304.

Hamilton, Herbert C.: A review of the biologic methods for the assay of digitalis. A bibliography is included.—Am. J. Pharm. 1920, v. 92, p. 529–537: Pharm. Era, 1920, v. 53, p. 103–104.

Levine, Samuel A., and Cunningham, T. Donald: A report of experiments on the intravenous injection of digitalis in cats. The average margin of safety (the difference between the minimum lethal dose and the minimum toxic dose) of various digitalis preparations when given intravenously to cats was found to be 48 per cent.—Arch. Int. Med. 1920, v. 26, p. 293–296.

Cloetta: A contribution to the chemical and pharmacological study of digitoxin and of its cleavage products.—Arch. exper. Path. u. Pharm. 1920, v. 88, p. 113–157.

Githens, T. S.: From experiments it is concluded that there is no difference between the individual glucosides of digitalis or mixtures of them in their cumulative effect.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 239.

Bohnenberger, F.: Experiments to determine the effect of digitalis on the color sense gave no proof of action of this nature.—Ztschr. exper. Med. 1920, v. 11, p. 138–143.

Hirschfelder, A. D., et al.: A study of the effect of high temperatures (fever) upon the action and toxicity of digitalis.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 427–431.

Githens, Thomas S.: A chemical and pharmacological study of the digitalis glucosides, with special reference to digitoxin and digitalein.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1060–1064.

Rösler, Otto A.: A comparative study of the effectiveness of the various aqueous extracts of *Digitalis purpurea.*—Therapie der Gegenwart, 1919, No. 12, through Pharm. Ztg. 1921, v. 65, p. 70.

McGill, William J.: An investigation of the constituents of digitalis obtained by extraction with cold water and with alcohol. It is concluded that crude fractions having a reasonable constant chemical composition may be obtained from the drug by means of various sulphates if uniform methods are employed. The saponin of digitalis leaves is found to be an inactive and nonhemolytic substance when purified.—J. Am. Chem. Soc. 1920, v. 42, p. 1893–1900.

Pittenger, P. S., and Ewe, George E.: Analytical data are given showing the variation in the activity of digitalin and digitalin "German" preparations on the market.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 254–255.

Levine, Samuel A.: An investigation of the potency of some French digitalis preparations. The M. L. D. of ouabain by the cat method was found to be 0.000059 gram per kilogram. The M. L. D.

of crystalline digitalin was 0.00086 gram.—Boston M. & S. J. 1920, v. 182, p. 64–66.

Hatcher, Robert A.: Studies on the pharmacology of the digitalis bodies. The chloroform-soluble principles of the infusion of digitalis are found to be much more readily absorbed by the gastrointestinal tract of the cat than the nonsoluble principles.—J. Am. M. Assoc. 1920, v. 75, p. 460–463.

Eggleston, Cary: A preliminary report of observations on the absorption of the active principles of digitalis. The chloroform-soluble extract was absorbed at least as rapidly as the best tincture of digitalis and much more rapidly than ordinary samples of the tincture.—J. Am. M. Assoc. 1920, v. 75, p. 463–465.

Hamilton, Herbert C.: Notes on the chemistry of digitalis, with special reference to the potency of chloroform-insoluble and chloroform-soluble extracts.—J. Ind. & Eng. Chem. 1920, v. 12, p. 1180–1181.

Brugsch, Theodor: A discussion of the clinical aspects of digitalis therapy.—Deutsch. med. Wchnschr. 1920, v. 46, p. 933–935.

Cohn, A. E., and Levy, R. L.: A comparison of the action of g-strophanthin and digitalis. It is found that strophanthin usually acts more rapidly than digitalis, but the effect of digitalis on the rate of the ventricles lasts longer than that of strophanthin.—Proc. Soc. Exper. Biol. & Med. 1920, v. 17, p. 81–82.

Joachimoglu, G.: Studies on the extraction of digitalis and the evaluation of digitalis preparations. Extraction with absolute alcohol in a Soxhlet apparatus gives the largest yield of glucosides. As a suitable standard for the Ph. Germ., 1,600 to 2,000 F. D. per gram is recommended for the leaves and 100 to 150 F. D. per gram for the tincture. The U. S. P. method gives the next largest yield. With all of the methods tested, extraction was incomplete.—Arch. exper. Path. u. Pharmakol. 1920, v. 86, p. 307–341.

Haines, Walter S.: A preparation of digitalis for hypodermic and intravenous use should be included in the next Pharmacopœia.—J. Am. Pharm. Assoc. 1920, v. 9, p. 292.

Crouzel, Ed.: The name "pandigitale" is proposed for a new preparation of digitalis, which is made by macerating and percolating the finely chopped leaves successively with water and 50 per cent alcohol and adding 0.5 per cent of tincture of iodine. The preparation is stated to be very stable and to contain all of the therapeutically active principles of digitalis.—Répert. pharm. 1920, v. 32, p. 66–67.

DIOSCOREA, N. F.

Lampa, Robert R.: The average ash content of wild indigo root found on the market is 6 per cent. The N. F. allows not over 6 per cent.—Am. Druggist. 1920. v. 68, No. 5., p. 27; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

DULCAMARA, N. F.

Eli Lilly & Company: In one shipment of bittersweet examined, false bittersweet was submitted for *Solanum dulcamara*, the true variety.—Proc. N. W. D. A. 1920, p. 358.

ECHINACEA, N. F.

Lampa, Robert R.: The average ash content of echinacea root found on the market is 6.50 per cent. The N. F. allows not over 6 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Callaway, J. E.: Notes on the therapeutic value and uses of echinacea.—Nat. Eclect. M. Assoc. Quart. 1920, v. 11, p. 305–307.

ELATERINUM.

Eli Lilly & Company: One lot of elaterin examined showed only about one-tenth of the normal amount of chloroform-soluble extract (elaterin) indicating that it may have been partially extracted before being offered for sale.—Proc. N. W. D. A. 1920, p. 359.

ELIXIRIA.

Fantus, Bernard: It is suggested that the strength of all official elixirs be reduced to a low alcohol standard and that pharmacists be required to so adjust the alcohol percentage of these elixirs as to render them iso-alcoholic, i. e., the alcoholic percentage required to prevent physical incompatibility with the medicament for which the elixir is to be used as a vehicle.—J. Am. Pharm. Assoc. 1920, v. 9, p. 708–709.

Lascoff, J. L.: It is recommended that the following be deleted from the N. F.: Elixir of cinchona alkaloids, iron and calcium lactophosphate; elixir of corydalis; compound elixir of formates.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

Anon.: A discussion of the advantages and disadvantages of the use of glycerin in place of sugar in the preparation of elixirs.—Proc. Am. Drug Mfg. Assoc. 1920, p. 259–261.

Lascoff, J. L.: It is suggested that a formula for the preparation of elixir of iron, quinine, and strychnine phosphate be introduced into the U. S. P. or N. F. A formula which is said to yield a satisfactory preparation of this nature is given.—Drug. Circ. 1920, v. 64, p. 170.

Ewe, Geo. E.: A report on the analysis of a sample of elixir of acetylsalicylic acid. It is suggested that further experimentation is necessary in order to produce a satisfactory elixir containing this acid.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 249–250.

ELIXIR AROMATICUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: The use of purified siliceous earth in making aromatic elixir is preferable to purified talc, as it filters more rapidly and produces a brilliantly clear elixir.—Am. J. Pharm. 1920, v. 92, p. 557.

Beringer, Geo. M., Jr.: The addition of 20 cubic centimeters of oil of cassia to each liter of compound spirit of orange is recommended for the preparation of aromatic elixir to improve the taste.—Proc. New Jersey Pharm. Assoc. 1920, p. 37.

Hilton, S. L.: It is recommended that in aromatic elixir, 319 grams of sugar be substituted for 375 cubic centimeters of syrup, because it is simpler and overcomes the making or using of syrup that has been made, eliminating thereby the introduction of spores.—J. Am. Pharm. Assoc. 1920, v. 9, p. 304.

Thum, John K.: A formula is given for the preparation of aromatic elixir which requires only 110 cubic centimeters of alcohol instead of 238 cubic centimeters as specified in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 250.

ELIXIR CINCHONÆ ALKALOIDORUM, N. F.

Marquier, Adolph F.: A modified formula is given for the preparation of elixir of cinchona alkaloids in which the flavor is improved.—Proc. New Jersey Pharm. Assoc. 1920, p. 100-101.

ELIXIR GLYCEROPHOSPHATUM COMPOSITUM, N. F.

Lascoff, J. L.: Compound wine of glycerophosphates is preferred to the elixir by most physicians and should, therefore, displace the latter.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598.

ELIXIR GLYCYRRHIZÆ.

Stone, W. H.: It is recommended that elixir of glycyrrhiza be deleted from the U. S. P., as there is no demand for it.—J. Am. Pharm. Assoc. 1920, v. 9, p. 304.

EMETINÆ HYDROCHLORIDUM.

Ague, Juan L.: A description of a method for the extraction of emetine from ipecac root and the preparation of emetine hydrochloride.—El Boletin farmaceutico, Lima, 1919, through Répert. pharm. 1920, v. 32, p. 183–184.

Éwe, G. E.: A quantitative acidity test for emetine hydrochloride with a limit of 0.3 per cent absolute HCl is preferable to the present requirement that a 1-in-20 solution be only "slightly acid" to litmus. The test for cephaeline in the U. S. P., IX, rules out most of the emetine hydrochloride on the market. A quantitative test for cephaëline with a limit of 3 per cent is preferable.—J. Am. Pharm. Assoc. 1920, v. 9, p. 304.

Mattei, C.: A study of the toxicity, elimination, and accumulation of emetine in man. It is concluded that the toxic effects of emetine are manifest in the circulatory, respiratory, nervous, and excretory systems.—Bull. mem. soc. med. hop. 1920, v. 36, p. 531–534, through Chem. Abstr. 1920, v. 14, p. 2661.

Plumier-Clermont: Results obtained in an experimental study of the action of emetine hydrochloride on the pulmonary circulation of the dog are reported.—Bull. Acad. Méd. Belg. 1919, v. 29, 4th Series, No. 2, p. 252, 353–369, through Zentralbl. Biochem. u. Biophys. 1920, v. 22, p. 319.

Allan, William: In experiments using emetine and *Entamoeba histolytica*, it was found that in no instance did the emetine affect the appearance or motility of these organisms in the stools in dilutions weaker than 1:2,000 in the space of one to two hours. Frequently dilutions as strong as 1:150 failed to kill the entamoebae in the allotted time.—J. Pharmacol. and Exper. Therap. 1920, v. 16, p. 21–23.

EMPLASTRA.

Gane, E. H.: It is recommended that the following be deleted from the U. S. P.: Capsicum plaster, rubber plaster.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gerrard, A. W.: Several selected formulae for the preparation of plaster mulls are presented.—Pharm. J. 1920, v. 105, p. 99–100; Chem. & Drug. 1920, v. 93, p. 98–100.

EMPLASTRUM BELLADONNÆ.

American Drug Manufacturers' Association: The committee on standards and deterioration of the American Drug Manufacturers' Association recommends that the pharmacopœial standard for belladonna plaster be changed from that of the U. S. P., IX, to that of the British Pharmacopœia of 1914, because of the scarcity of the drug, the difficulty of obtaining extracts of proper consistency and strength to make plasters, and the necessity of conserving the stock of belladonna for other important medicinal purposes. The Association also recommends that the U. S. P., VIII, process for assaying belladonna plaster be adopted by the committee in place of that of the ninth revision.—J. Am. Pharm. Assoc., 1920, v. 9, p. 304–305.

Kilmer, Frederick B.: The firm's method for the determination of the mydriatic alkaloids in belladonna plaster is described in detail.—J. & J. Lab. Notes, 1920, No. 2, p. 43–46.

EMULSA.

Gane, E. H.: It is recommended that the following be deleted from the U. S. P.: Emulsion of almond, emulsion of asafetida, emulsion of oil of turpentine.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Thomas, Arthur W.: A review of the literature on emulsions. Forty-four references are given.—J. Ind. & Eng. Chem. 1920, v. 12, p. 177–181.

Briggs, T. R., and Clark, L. H.: Experiments on emulsions. III. Emulsions by shaking. IV. Pharmaceutical emulsions. It is shown that emulsions can be prepared by means of previously "hydrated" colloids, providing a modification of the "Continental" method is followed.—J. Phys. Chem. 1920, v. 24, p. 120–126, 147–160.

Briggs, T. R., et al.: Experiments on emulsions. IV. Pharmaceutical emulsions. An experimental study of the continental method of preparing emulsions.—J. Phys. Chem. 1920, v. 24, p. 120–126.

Holmes, Harriett N., and Child, William C.: Experiments with the use of gelatin as an emulsifying agent are reported.—J. Am. Chem. Soc. 1920, v. 42, p. 2049–2056.

Scoville, Wilbur L.: A discussion of conditions affecting the stability of emulsions.—Bull. Pharm. 1920, v. 34, p. 18–19.

Second, George L.: Practical notes on the dispensing of emulsions.—Nat. Drug. Clerk. 1920, v. 8, No. 3, p. 257.

Cook, E. F. and Nichols, A. B.: A report of experiments in the preparation of emulsions of benzyl benzoate.—Am. J. Pharm. 1920, v. 92, p. 800.

Brown, Edwin T.: Notes on the preparation of emulsions of benzyl benzoate.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 298.

DeGrote, Melvin: An account is given of the manufacture of certain emulsion flavors.—Am. Perf. 1920, v. 15, p. 220–223.

Dean, E. W., and Stark, D. D.: A convenient method for the determination of water in petroleum and other organic emulsions is described. A bibliography is appended.—J. Ind. & Eng. Chem. 1920, v. 12, p. 486–490.

EMULSUM PETROLATI, N. F.

Lascoff, J. L.: It is recommended that emulsion of petrolatum be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

ERGOTA.

Anon.: Statistics are given on the sources of supply and on the importation of ergot for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 26–27.

Bach, D.: Studies are reported on the sexual reproduction of the ergot of rye.—Pharm. Weekblad, 1920, v. 57, p. 493–499.

Barger, Geo.: A short résumé of the history of ergot and of its chemistry.—Pharm. J. 1920, v. 105, p. 470–473.

Anon.: The Hungarian Minister of Agriculture has issued a decree enforcing the collection of ergot during the forthcoming harvest. The Medicinal Plant Commission will purchase the crop at not less than 400 cr. per kilo, according to quality.—Chem. & Drug. 1920, v. 93, p. 1099.

H. M.: It is recommended that an assay process for the determination of cornutine in ergot be included in the new edition of the Ph. Germ.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Anon.: Notes on the determination of ergotinine in ergot. A kilogram of a good specimen of ergot should yield 1.2 gram of ergotinine.—Chem.-Ztg. 1918, v. 42, p. 446, through Pharm. Zentralh. 1920, v. 61, p. 31.

Zellner, J.: Data relative to the physical and chemical constants of the fatty oil of ergot are given.—Chem. Umschau, 1920, v. 27, p. 176; Pharm. Zentralh. 1920, v. 52, p. 745.

Gesellschaft für chemische Industrie: German patent No. 317,400 describes the manufacture of an effective water-soluble preparation of ergot, which can be used for injection.—Chem.-Ztg. Beil. 1920, v. 44, p. 189.

Anon.: Owing to a scarcity of ergot, an extract of *Capsella Bursae pastoris* is now being used in Hungary.—Chem. & Drug. 1920, v. 92, p. 440.

Wasicky, Richard: A discussion of the suitability of shepherd's purse as a substitute for ergot.—Apoth.-Ztg. 1920, v. 35, p. 277–278.

ERIODICTYON.

Éwe, George E.: Four lots of yerba santa examined contained stems ranging from 7.55 per cent to 24.4 per cent. This is excessive, as 5 per cent would appear to be the maximum amount permissible.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 120.

Oesterle. O. A.: A study of chrysoeriol isolated from yerba santa by Power and Tutin has shown it to be identical with luteolinmonomethyl ether (1:3:4′-trioxy-3′-methyoxyflavon).—Arch. Pharm. 1918. v. 256. p. 119. through Pharm. Zentralh. 1920. v. 61. p. 34.

EUCALYPTOL.

Anon.: No reference is made in the U. S. P., IX, to the refractive index of eucalyptol. At 20° C. the refractive index is 1.454 to 1.459.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 55.

Kleber, Clemens, and von Rechenberg, Wolff Frhr.: A review and criticism of the various methods for the determination of cineol in essential oils, and a description of a new method which is based on the solidification point of the oil.—J. prakt. Chem. 1920, v. 101, p. 171–176.

EUCALYPTUS.

Hommell, P. E.: Eucalyptus should be retained in the U. S. P., as it possesses valuable medical properties.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Hemsley, W. Botting A review of a book by J. H. Maiden entitled *A Critical Revision of the Genus Eucalyptus*.—Nature, London, 1920, v. 106, p. 45.

Welch, M. B.: Observations on the eucalyptus-oil glands, mostly anatomical. The oil is found to be present in the form of a fine emulsion, which is broken by varying concentrations of alcohol.—J. Proc. Roy. Soc. N. S. Wales, 1920, v. 54, p. 208–217.

Éwe, George E.: One lot of eucalyptus leaves examined was rejected because it consisted of flowering tops only.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

Trabut: Favorable results are reported in the treatment of diabetes with an infusion of eucalyptus leaves.—Bull. gén. Therap. 1920, v. 171, p. 429–430.

EUGENOL.

Anon.: The statement in the U. S. P., IX, that eugenol is strongly refractive is of no importance. The refractive index at 20° C. is 1.539 to 1.542.—Semi-Ann. Rep. 1918, Apr.-Oct., p. 56.

EUONYMUS, N. F.

Éwe, George E.: Five lots of wahoo bark examined contained whole stems ranging from 7.88 per cent to 14.4 per cent, whereas the N. F. permits only 3 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

Roberts, J. G.: A large lot of wahoo bark was rejected because it contained only 35 per cent of root bark. The balance of the sample consisted of 15 per cent of stem bark and 50 per cent of stems and root.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

EUPATORIUM, N. F.

Éwe, George E.: Four lots of boneset examined contained stems ranging from 13 to 50 per cent, which is above the arbitrary standard of 10 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

EUPHORBIA PILULIFERA, N. F.

Lampa, Robert R.: The average ash content of euphorbia pilulifera found on the market is 13.60 per cent. The N. F. allows not over 12 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

EXTRACTA.

Mittelbach, Wm.: If possible, all extracts should be in the powdered form, except the few that are used principally as pill excipients. If possible, a better filler than starch or magnesium oxide should be provided.—Proc. Missouri Pharm. Assoc. 1920, p. 53.

Oddo, Bernardo: Studies on the preparation and assay of the extracts official in the Ph. Ital.—Boll. Chim.-Farm. 1920, v. 59, p. 49–53, 74–77, 121–125, 145–148, 169–173, 363–366.

H. M.: Modifications of the Ph. Germ. method for the determination of alkaloids in the extracts of belladonna and hyoscyamus are recommended.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245. through Pharm. Zentralh. 1920, v. 61, p. 5.

EXTRACTUM ACONITI.

Colson, H. C., Jr.: The preparation of a standard extract, a standard fluidextract, and a standard tincture of aconite by an impartial laboratory, e. g., the Hygienic Laboratory, and the distribution of samples thereof to laboratories making physiological assays is recommended. The substitution of a 24-hour test period for the present 12-hour guinea-pig test is also recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 305.

Éwe, George E.: A reduction in alkaloidal standard of extract of aconite to 1.6 to 2.0 and a corresponding change in the physiological standard is suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 305.

Oddo, Bernardo: Notes on the preparation and analysis of the extract of aconite according to the Italian pharmacopœia.—Boll. chim.-farm. 1920, v. 59, p. 145–148, 169–173.

Rusby, H. H.: The dose of aconite is half a grain; that of the extract one-sixth of a grain, or a third as large. An eighth of a grain would bear the proper relation to the dose of the drug.—Am. Druggist, 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

EXTRACTUM ALOES, N. F.

Oddo, Bernardo: The evaluation of extract of aloes prepared according to the method of the Ph. Ital. is discussed in detail. Analytical results are given.—Boll. chim.-farm. 1920, v. 59, p. 363–366.

EXTRACTUM CANNABIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that rosin or some other more suitable substance than glucose be experimented with as a diluent in cannabis extract as glucose is not a satisfactory diluent because of the resinous character of the preparation.—Am. J. Pharm. 1920, v. 92, p. 557.

EXTRACTUM CARNIS, N. F.

Kluender, Udo: The process of manufacture of Liebig's meat extract as employed by the Lemco or Oxo companies of Fray Bentos and of Colon-Entre Rios, Argentine, is described.—Chem.-Ztg. 1920, v. 44, p. 837–838.

Roberts, J. G.: Four of five samples of extract of beef examined contained an excess of sodium chloride. The excess found, when expressed in the terms given in the N. F., ranged from 0.38 per cent to 18.5 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

EXTRACTUM CIMICIFUGÆ.

Gane, E. H.: It is suggested that extract of cimicifuga be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Rusby, H. H.: The dose of the extract of cimicifuga is a little more than a fourth that of the drug, but it is not likely that the yield of extract is in so large a proportion.—Am. Druggist, 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

Oddo, Bernardo: Tests for the evaluation of extract of cinchona are described. These tests include a determination of the residue on drying, ash determination, determination of free acid, and the determination of quinine and cinchonine.—Boll. chim.-farm. 1920, v. 59, p. 121–125.

EXTRACTUM COLOCYNTHIDIS.

H. M.: It is stated that the new edition of the Ph. Germ. should at least include a test for the identity of the extract of colocynth.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

EXTRACTUM DIGITALIS.

Cumston, Charles G.: Notes on the preparation and properties of "physiological extracts," with special reference to the preparation and pharmacodynamic action of the physiological extract of digitalis.—New York M. J. 1920, v. 111, p. 384–386.

EXTRACTUM ERGOTÆ.

Glücksmann, C.: Several tests for determining the identity of extract of ergot are described.—Pharm. Presse, 1918, No. 80, through Pharm. Zentralh. 1920, v. 61, p. 86–87.

Oddo, Bernardo: A report of studies on the hydro-alcoholic extract of ergot of the Ph. Ital., including qualitative and quantitative tests.—Giorn. chim. ind. appl. 1920, v. 2, p. 485–491.

EXTRACTUM EUONYMI, N. F.

Éwe, George E.: Very little of the extract of euonymus is used, and deletion from the new N. F. is therefore suggested, or a continuation in the next edition by name only with a reference to the present edition.—Am. J. Pharm. 1920, v. 92, p. 168.

EXTRACTUM FERRI POMATUM, N. F.

Linde, O.: It is recommended that the title for the ferrated extract of apples given in the Ph. Germ. be changed to "Ferrum malicum crudum."—Apoth.-Ztg. 1920, v. 35, p. 451.

EXTRACTUM GLYCYRRHIZÆ.

Snyder: It is reported that some trouble has been experienced with extract of glycyrrhiza due to the development of a fungous growth therein which renders it unfit for use. The lack of uniformity in the commercial product with respect to moisture content is also pointed out. Commercial samples show a moisture content of from 25 to 54 per cent. It is suggested that a moisture content of not more than 30 per cent is desirable.—Proc. Am. Drug Mfg. Assoc. 1920, p. 253–254.

EXTRACTUM HÆMATOXYLI, N. F.

Éwe, George E.: It is recommended that the extract of hematoxylon be deleted from the N. F., or continued in name only, with a reference to the present edition.—Am. J. Pharm. 1920, v. 92, p. 168.

EXTRACTUM HYDRASTIS.

Éwe, George E.: The standard of 8 per cent alkaloids for extract of hydrastis is suggested. The standard of the fluid extract is 1.8 to 2.2 per cent. The solid extract should be four times the strength of the fluid extract.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

Stone, W. H.: A standard for extract of hydrastis of 8 to 9 per cent is suggested, as it is practically impossible to get an extract of 9 to 11 per cent strength, and it is sometimes necessary to fortify the extract with hydrastine alkaloid.—J. Am. Pharm. Assoc. 1920, v. 9, p. 305.

EXTRACTUM JALAPÆ, N. F.

Éwe, George E.: An assay process for extract of jalap is described. It is recommended that the process be included in the next N. F.—Am. J. Pharm. 1920, v. 92, p. 168–169.

EXTRACTUM MALTI.

Gane, E. H.: It is suggested that a process for determining the diastasic power of extract of malt be included in the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

EXTRACTUM NUCIS VOMICÆ.

Dufilho, M. E.: A report of studies on the preparation and standardization of the extract of nux vomica.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 173.

EXTRACTUM OPII.

Linde, O.: Extract of opium readily absorbs moisture, and should, therefore, be kept dry.—Apoth.-Ztg. 1920, v. 35, p. 451.

EXTRACTUM PHYSOSTIGMATIS.

Gane, E. H.: It is suggested that extract of physostigma be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Éwe, George E.: It is stated that the U. S. P. assay method for extract of physostigma does not give reliable results. A more reliable method is proposed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

EXTRACTUM PODOPHYLLI, N. F.

Éwe, George E.: It is recommended that a method for the standardization of the extract of podophyllum be introduced into the next edition of the N. F. A procedure for carrying out this assay is described in detail.—Am. J. Pharm. 1920, v. 92, p. 169–170.

EXTRACTUM RHEI.

Linde, O.: It is recommended that the new edition of the Ph. Germ. give a test for oxymethyl-anthraquinones in extract of rhubarb.—Apoth.-Ztg. 1920, v. 35, p. 451.

EXTRACTUM VIBURNI PRUNIFOLII.

Gane, E. H.: It is suggested that extract of viburnum prunifolium be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FEL BOVIS.

Mittelbach, Wm.: Ox gall is stated to have but little medicinal value, and it is suggested that it be deleted from the U. S. P.—Proc. Missouri Pharm. Assoc. 1920, p. 55.

Salkowski, E.: The precipitate which separates from ox gall on long standing was identified as calcium palmitate.—Ztschr. physiol. Chem., v. 97, p. 210–212, through Chem. Abstr. 1920, v. 14, p. 550.

FERRI CARBONAS SACCHARATUS.

Hommell, P. E.: The infrequent demand for saccharated ferrous carbonate renders it unworthy of a place in the U. S. P., as other iron tonics are superior.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Funck, Erich: With reference to the new edition of the Ph. Germ., it is stated that "Ferrum carbonicum saccharo" is a more appropriate title than "Ferrum carbonicum saccharatum."—Apoth.-Ztg. 1920, v. 35, p. 61.

Bachman, Gustav: Of 7 samples of saccharated ferrous carbonate examined, 2 assayed less than 8 per cent of ferrous carbonate and the others ranged from 10.5 to 13 per cent. The U. S. P. requires not less than 15 per cent.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

FERRI CHLORIDUM.

Puxeddu, E.: A note on the photochemical dissociation of ferric chloride.—Gaz. chim. ital. 1920, v. 50, p. 154–162; Bull. soc. chim. France, 1920, v. 28, p. 623.

FERRI CITRAS, U. S. P. VIII.

Belloni, E.: A report of extensive studies on the constitution of the organic salts of iron. II. Iron citrate, and iron ammonium citrate.—Gaz. chim. ital. 1920, v. 50, p. 159–212.

FERRI ET AMMONII CITRAS.

Belloni, E.: A review of pharmacopœial methods for the preparation of ferric citrate and ferric citrate with ammonium citrate. Data are also given showing the composition of these substances as official in the different pharmacopœias.—Boll. chim.-farm. 1920, v. 59, p. 437–441, 521–527.

FERRI ET QUININÆ CITRAS.

H. M.: It is suggested that the new edition of the Ph. Germ. require six shakings with ether instead of four in the assay of iron and quinine citrate. It is stated that higher results will be obtained under these conditions.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 5.

FERRI GLYCEROPHOSPHAS, N. F.

American Drug Manufacturers' Association: The scientific section of the American Drug Manufacturers' Association recommends that iron glycerophosphate be introduced into the new U. S. P., with descriptions, tests, and assay given in the N. F., IV.—J. Am. Pharm. Assoc. 1920, v. 9, p. 292.

FERRI HYDROXIDUM CUM MAGNESII OXIDO.

Gane, E. H.: It is recommended that ferric hydroxide with magnesium oxide be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FERRI SULPHAS.

Lyons, A. B.: The assay methods given in the U. S. P. for efflorescent salts, such as ferrous sulphate, are very unsatisfactory. In these cases the assay starts with an accurately weighed portion of the salt which contains an unknown quantity of water. Furthermore, the salt is not only efflorescent, but is subject to oxidation. Obviously, the results obtained in these tests do not show whether or not the salt conforms to the rubric requirement.—Drug. Circ. 1920, v. 64, p. 86.

FERRI SULPHAS GRANULATUS.

Zimmermann, W.: Samples of "Ferrum sulfuricum purificatum" (alcohole paratum) examined were found to contain basic ferric sulphate.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 45.

FERRUM.

Crouzel, Ed.: All metals which are oxidized in the air may be identified by their odor. This is especially true of iron, which has a very pronounced odor. By merely rubbing a small amount of the material between the index finger and the thumb and smelling, iron may be detected in the metallic state, in its salts, in solutions, and in the various body fluids, including blood.—Répert. pharm. 1920, v. 32, p. 129–131.

Hindley, H.: In assaying iron by the Ph. Brit. method for Ferrum Reductum, the presence of phosphorus and the formation of PH_3 causes too high results since PH_3 is equivalent to 8Fe. This source of error is eliminated by boiling to remove the PH_3. Methods are described for determining both the free and combined iron.—Pharm. J. 1920, v. 104, p. 117–118.

Kolthoff, I. M.: The theory of the electrometric titration of ferrous iron is discussed and the practical advantages of the method are pointed out.—Chem. Weekblad, 1919, v. 16, p. 450–461.

Maurin, E.: Data relative to the manganese content of iron and the iron salts used in medicine are presented.—Répert. pharm. 1920, v. 32, p. 33–34.

Archibald, E. H., and Fulton, Ruth V.: An account of the estimation of iron and the separation of manganese from iron by nitrosophenylhydroxylamine ammonium (cupferron).—Trans. Roy. Soc. Canada, 1919, v. 13, Sec. 3, p. 243–253, through Chem. Abstr. 1920, v. 14, p. 2454.

Richmond, H. Droop, and Ison, Edith M.: A description of a rapid volumetric method for the estimation of iron in syrups, applicable in the presence of hydrochloric acid, phosphorus, oxyacids, and organic matter.—Analyst (The), London, 1920, v. 45, p. 258–260.

FERRUM REDUCTUM.

Éwe, George E.: Practically all reduced iron on the market contains sulphides in excess of the U. S. P. allowance. A quantitative test should be included in the U. S. P. based on the $BaSO_4$ method. A maximum allowance of sulphur should be included in the U. S. P. based on what manufacturers have found to be acceptable to the trade and practical to adhere to.—J. Am Pharm. Assoc. 1920, v. 9, p. 306.

Decker, C. C.: All samples of reduced iron examined contained sulphides in excess of the U. S. P. allowance, but answered all other U. S. P. requirements.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 113.

FLUIDEXTRACTA.

Anon.: A discussion of the advantages and disadvantages of half strength fluidextracts. The introduction of this class of preparations in the U. S. P. is opposed.—Proc. Am. Drug Mfg. Assoc. 1920, p. 254–257.

Haine, Henning: Data showing the specific gravity and dried extract content of a large number of fluidextracts prepared according to Swedish methods are given.—Farm. Revy, 1920, v. 19, p. 480, through Pharm. Zentralh. 1920, v. 61, p. 673.

Berg, Frantz F.: The substitution of asbestos for oak sawdust in the assays of fluidextract of ipecac and fluidextract of cinchona is recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 772–773.

FLUIDEXTRACTUM ACONITI.

Colson, H. C., jr.: The preparation of a standard extract, a standard fluidextract, and a standard tincture of aconite by an impartial laboratory, e. g. the Hygienic Laboratory, and the distribution of samples thereof to laboratories making physiological assays is recommended. The substitution of a 24-hour test period for the present 12-

hour guinea pig test is also recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

Éwe, George E.: A reduction in alkaloidal standard for fluidextract of aconite to 0.4 to 0.5 gram per 100 cubic centimeters, and a corresponding change in the physiological standard is suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

FLUIDEXTRACTUM AROMATICUM.

Gane, E. H.: It is suggested that aromatic fluidextract be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM ASPIDOSPERMATIS.

Gane, E. H.: It is suggested that fluidextract of aspidosperma be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Éwe, George E.: It is recommended that a fluidextract of aspidosperma be directed to be assayed and that the standard be 1 per cent of total alkaloids. An assay similar to that for fluidextract of cinchona would be satisfactory.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

FLUIDEXTRACTUM CASCARÆ SAGRADÆ.

Mueller, Bertha: It is recommended that the formula of the U. S. P., VIII, for fluidextract of cascara sagrada replace the present formula. It is a physical impossibility to extract cascara with water as it will not percolate through the drug, but causes an undue swelling of the same with a corresponding clogging, and eventually fermentation sets in.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

Linde, O.: The Ph. Germ. test for oxymethyl-anthraquinones is criticized in the case of fluidextract of cascara sagrada on the ground that the quantity of fluidextract directed to be used is too large. Two drops is sufficient for the test.—Apoth.-Ztg. 1920, v. 35, p. 451.

FLUIDEXTRACTUM CASCARÆ SAGRADÆ AROMATICUM.

Mueller, Bertha: It is recommended that the formula of the U. S. P., VIII, with the technic somewhat simplified, for aromatic fluidextract of cascara sagrada replace the present formula. Mix the cascara, licorice root, and magnesium oxide thoroughly, moisten with the menstruum given in the U. S. P., VIII. Allow to macerate for 48 hours and extract according to the U. S. P., VIII, directions.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

FLUIDEXTRACTUM CHIRATÆ, N. F.

Éwe, George E.: There is practically no demand for the fluidextract of chirata on the market and its deletion from the N. F. is recommended.—Am. J. Pharm. 1920, v. 92, p. 170.

FLUIDEXTRACTUM CIMICIFUGÆ.

Stone, W. H.: In the preparation of fluidextract of cimicifuga, it is suggested that the menstruum be changed from U. S. P. alcohol to a mixture of alcohol 3 parts, and water 1 part, as this menstruum will easily exhaust the drug and will reduce the cost of manufacture.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

FLUIDEXTRACTUM CINCHONÆ.

Anon.: The new supplement to the Ph. Fr. describes fluidextract of cinchona as a clear reddish-brown liquid, with an astringent bitter taste, and a pronounced odor of cinchona; it is not rendered cloudy by the addition of water or alcohol; 100 grams contain 3.5 grams of total alkaloids.—Chem. & Drug. 1920, v. 92, p. 456.

FLUIDEXTRACTUM COLCHICI SEMINIS.

Stone, W. H.: It is suggested that the finished product in the case of the fluidextract of colchicum seed be obtained by direct percolation. The drug is easily exhausted if properly powdered and the application of heat to the extra percolate is liable to decompose the alkaloids that may be present.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306.

FLUIDEXTRACTUM CONII, N. F.

Éwe, George E.: It is recommended that sulphuric acid be employed in place of acetic acid in the preparation of fluidextract of conium and that the latter be prepared by direct percolation.—Am. J. Pharm. 1920, v. 92, p. 170.

FLUIDEXTRACTUM CUBEBÆ, N. F.

Éwe, George E.: It is recommended that an assay for cubeb based on the U. S. P. process for the determination of volatile extractive soluble in ether be included in the new edition of the N. F. in order to insure uniformity in the fluidextract. A method for carrying out this assay is described in detail.—Am. J. Pharm. 1920, v. 92, p. 171.

FLUIDEXTRACTUM ERGOTÆ.

Snyder, J. P.: It is suggested that the ergot used in the preparation of the fluidextract be extracted with petroleum benzene or carbon tetrachloride previous to percolation in order to remove the fat. A more stable preparation is said to result if this procedure is followed. The fat can be removed from the finished product by chilling.—Proc. New York Pharm. Assoc. 1920, p. 208; Proc. Am. Drug. Mfg. Assoc. 1920, p. 250–251.

Thum, John K.: It is recommended that the use of hydrochloric acid, or any acid, in the menstruum for extracting fluidextract of ergot be discontinued. The presence of acid prevents its use for hypodermic purposes. The extraction of this drug by the use of chloroform as recommended in the N. F. for the making of the aqueous extract of ergot, or ergotin, shows that an acid is unnecessary, as this preparation gives evidence of all the therapeutic properties characteristic of this drug.—J. Am. Pharm. Assoc. 1920, v. 9, p. 306–307.

FLUIDEXTRACTUM EUCALYPTI.

Gane, E. H.: It is suggested that fluidextract of eucalyptus be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM FRANGULÆ.

Linde, O.: The Ph. Germ test for oxymethyl-anthraquinones in fluidextract of frangula is criticized on the ground that the amount directed to be used is too large. One drop is sufficient.—Apoth.-Ztg. 1920, v. 35, p. 451.

FLUIDEXTRACTUM GLYCYRRHIZÆ.

Francis, J. M.: Anyone attempting to produce fluidextract of glycyrrhiza in accordance with the instructions of the U. S. P. can not but be impressed with the fact that it is "another pharmaceutical abomination." The drug contains such a large amount of extractive matter of several different kinds that when extracted with water as prescribed, the resultant fluidextract will be almost as heavy as ordinary glycerin and, moreover, it will contain a floating precipitate which makes the fluid exceedingly unsightly.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

Mueller, Bertha: It is suggested that the formula for fluidextract of glycyrrhiza in the U. S. P., VII, replace the present formula. Although the formulas given in the U. S. P., VIII, and in the present U. S. P. may be workable in the hands of large manufacturers, who have the necessary equipment for forcing the prescribed menstruum through the drug, such is not the case with retail druggists.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

FLUIDEXTRACTUM GRANATI.

Gane, E. H.: It is suggested that fluidextract of pomegranate be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Stone, W. H.: It is recommended that the fluidextract of pomegranate be deleted from the U. S. P. as there is very little demand for it.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

FLUIDEXTRACTUM GUARANÆ.

Gane, E. H.: It is suggested that fluidextract of guarana be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM HYOSCYAMI.

Bliss, A. R., jr.: The U. S. P. assay method for fluidextract of hyoscyamus directs that 25 cubic centimeters of the sample be used and that the directions for assaying fluidextract of belladonna root be followed. The amounts of water and ammonia water are sufficient to precipitate the resins and alkaloids in the belladonna assay where only 10 cubic centimeters of the sample are used, but they are insufficient to throw them out in the case of 25 cubic centimeters of fluidextract of hyoscyamus. It is believed that this method will be satisfactory if the amounts of water and ammonia are increased sufficiently to bring about complete precipitation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

FLUIDEXTRACTUM IPECACUANHÆ.

Berg, Frantz F.: Experiments in the preparation of fluidextract of ipecac indicate that 71 per cent alcohol is the best solvent for the active principles. The exhaustion of the drug may be hastened by moistening with warm hydrochloric acid previous to percolation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598–599.

Snyder, J. P.: It is stated that the menstrum directed to be used by the U. S. P., IX, is not adapted to the rapid or complete extraction of the alkaloids of ipecac. The menstrum given in the U. S. P., VIII, is said to be far superior from the standpoint of exhausting the drug, but objections have been raised to a fluidextract so prepared on the grounds that it is not miscible with syrup. The use of two menstrua of different alcoholic strength is suggested to overcome this difficulty. Other suggestions for improving the fluidextract are also made.—Proc. New York Pharm. Assoc. 1920, p. 206–207; Proc. Am. Drug Mfg. Assoc. 1920, p. 244–250.

FLUIDEXTRACTUM JALAPÆ, N. F.

Éwe, Geo. E.: It is recommended that an assay process for resins in the fluidextract of jalap be included in the next edition of the N. F. An assay process based upon the U. S. P. method for jalap is described.—Am. J. Pharm. 1920, v. 92, p. 171.

FLUIDEXTRACTUM KOLÆ, N. F.

Éwe, Geo. E.: It is recommended that a standard be provided in the new N. F. for fluidextract of kola. A standard of 0.91 to 1.1 grams of caffeine per 100 mils is stated to be satisfastory.—Am. J. Pharm. 1920, v. 92, p. 172.

FLUIDEXTRACTUM MATICO, N. F.

Éwe, Geo. E.: It is recommended that the fluidextract of matico be deleted from the N. F., as it is used but little.—Am. J. Pharm. 1920, p. 172.

FLUIDEXTRACTUM MEZEREI, N. F.

Éwe, Geo. E.: It is recommended that the fluidextract of mezereum be deleted from the N. F. because of its very limited use at the present time.—Am. J. Pharm. 1920, v. 92, p. 172.

FLUIDEXTRACTUM PODOPHYLLI.

Stone, W. H.: It is stated that the cost of manufacturing fluidextract of podophyllum can be reduced by using a menstruum of 4 parts of alcohol and 1 part of water, as this effectually extracts the drug.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

Éwe, Geo. E.: An assay process and a standard for fluidextract of podophyllum is suggested. A procedure, based on the U. S. P. assay method for podophyllum is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 307.

FLUIDEXTRACTUM QUERCUS, N. F.

Éwe, Geo. E.: It is recommended that the fluidextract of quercus be deleted from the N. F., as it is used but little at the present time.—Am. J. Pharm. 1920, v. 92, p. 172.

FLUIDEXTRACTUM SABAL.

Stone, W. H.: It is suggested that in the preparation of fluidextract of sabal, fresh, ripe berries be used instead of the partially dried ripe fruit and that U. S. P. alcohol be used as a menstruum.—J. Am. Pharm. Assoc. 1920, v. 9, p. 308.

FLUIDEXTRACTUM SANGUINARIÆ, N. F.

Éwe, Geo. E.: It is recommended that the new N. F. provide a method for the standardization of fluidextract of sanguinaria. A method for this purpose is described.—Am. J. Pharm. 1920, v. 92, p. 172.

FLUIDEXTRACTUM SARSAPARILLÆ.

Gane, E. H.: It is recommended that fluidextract of sarsaparilla be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM SARSARPARILLÆ COMPOSITUM.

Gane, E. H.: It is recommended that compound fluidextract of sarsaparilla be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM SCILLÆ.

Colson, H. C., Jr.: The present method for manufacturing fluidextract of squill is cumbersome, and it has been found that a simplified process (see J. Am. Pharm. Assoc. November, 1918) yields a product which is physiologically and chemically the equal of one obtained by the present U. S. P. method.—J. Am. Pharm. Assoc. 1920, v. 9, p. 308.

FLUIDEXTRACTUM SENEGÆ.

Mueller, Bertha: It is recommended that, in the fluidextract of senega, the senega previous to extraction be treated with boiling water; that diluted alcohol be used as menstruum; that the acidity of the finished product be ascertained and the amount of the neutralizing agent be gauged accordingly. A formula is given and a method for preparation is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 308.

FLUIDEXTRACTUM STILLINGIÆ.

Gane, E. H.: It is suggested that fluidextract of stillingia be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM SUMBUL.

Stone, W. H.: In the preparation of fluidextract of sumbul U. S. P., alcohol is suggested as the menstruum, as it is a better solvent for exhausting the drug than the mixture of alcohol, 4, and water, 1, now prescribed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 308.

FLUIDEXTRACTUM TRITICI.

Stone, W. H.: In the preparation of fluidextract of triticum, a temperature of not over 120° F. should be specified during evaporation of the aqueous percolate previous to the addition of the alcohol. The aqueous percolate contains a large quantity of caramelizable substances, and if a temperature above 120° F. is employed it is liable to become scorched, thus giving a bad odor, taste, and color.—J. Am. Pharm. Assoc. 1920, v. 9, p. 308–309.

FLUIDEXTRACTUM UVÆ URSI.

Stone, W. H.: Diluted alcohol is stated to be better for exhausting uva ursi than the menstruum specified in the U. S. P., IX.—J. Am. Pharm. Assoc. 1920, v. 9, p. 309.

FLUIDEXTRACTUM VERATRI VIRIDIS.

Gane, E. H.: It is suggested that fluidextract of veratrum viride be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLUIDEXTRACTUM XANTHOXYLI.

Gane, E. H.: It is suggested that fluidextract of xanthoxylum be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

FLIUDEXTRACTUM ZINGIBERIS.

Stone, W. H.: It is suggested that direct percolation be used in exhausting ginger, thus reducing time and labor in the manufacture of the fluidextract.—J. Am. Pharm. Assoc. 1920, v. 9, p. 309.

Ewe, George E.: A method used in the laboratories of the H. K. Mulford Co. for the standardization of fluidextract of ginger is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 309.

FLUIDGLYCERATA, N. F.

Lascoff, J. L.: It is recommended that fluidglycerates be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

FOENICULUM.

Viehoever, Arno: The adulteration of fennel seed with *Foeniculum piperitum* is reported. The weight of 100 cubic centimeters of fennel seed (*Foeniculum vulgare*) is found to be 35 grams; 100 cubic centimeters of bitter fennel seed (*Foeniculum piperitum*) 26.7.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154–155.

GALLA.

Branhofer, Karl, and Zellner, Julius: A third contribution to the chemical study of plant galls.—Ztschr. physiol. Chem. 1920, v. 109, p. 166–176.

Simbo, Ippo: A description of the galls of *Rhus javanica* caused by insects (*Schlechtendalia* sp. and *Nurudeopsis* sp.).—Bot. Abstr. 1920, v. 3, p. 424.

Riley, W. J. A.: A note calls attention to the fact that the Chippewa Indians made use of the galls produced by a species of *Eriophyes* on sumac in the treatment of diarrhea.—Bot. Abstr. 1920, v. 3, p. 64.

GAMBIR.

Mittelbach, Wm.: It is suggested that gambir be deleted from the U. S. P., as it is but seldom used at present.—Proc. Missouri Pharm. Assoc. 1920, p. 55.

Rusby, H. H.: Gambir should be described as "a dried aqueous extract" instead of "a dried extract."—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Éwe, George E.: It is suggested that in lieu of adopting standards for soft gambir the revision committee should seek the cooperation of the jobber in placing none but friable gambir on the market, but since the jobber finds it necessary to offer the soft variety, standards should be set for that variety by the revision committee.—J. Am. Pharm. Assoc. 1920, v. 9, p. 309–310.

Freudenberg, Karl: Tannins. V. A report of researches to determine the constitution of gambir catechol.—Ber. deutsch. chem. Gesellsch. 1920, v. 53B, p. 1416–1427.

Groll, J. T.: Notes on the adulteration of gambir.—Indische Mercuur, May 21, 1920, through Pharm. Weekblad, 1920, v. 57, p. 623.

Baker, M. E.: Three lots of gambir examined yielded alcohol-soluble matter ranging from 70.4 per cent to 88.1 per cent. The U. S. P. requires 60 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

GELATINUM.

Dakin, H. D.: A study of the constitution of the gelatin molecule by employing the new butyl alcohol method for extracting amino acids.—J. Biol. Chem. 1920, v. 44, p. 499–529.

Schulte, M. J.: Notes on the determination of the gold number and its value in the testing of gelatin intended for use in the preparation of sterile solutions for injection.—Pharm. Weekblad, 1920, v. 57, p. 822–825.

Smith, C. R.: Data relative to the determination of the jellying power of gelatins and glues by the polariscope method are presented.—J. Ind. & Eng. Chem. 1920, v. 12, p. 878–881.

Loeb, Jacques: Studies in the general and colloidal chemistry of gelatin solutions.—J. chim. phys. 1920, v. 18, p. 283–299.

GELSEMIUM.

Burdick, Alfred S.: It is suggested that an assay process for gelsemium be included in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

GENTIANA.

Anon.: Statistics are given on the sources of supply and on the importation of gentian for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 27.

Osterwalder, R.: A pharmacognostical study of *Gentiana lutea* L., *purpurea* L., *punctata* L., *Pannonica* Scop., and *asclepiadea* L.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 201–207.

Linde, O.: It is suggested that the Ph. Germ. require gentian root to yield at least 33 per cent of aqueous extract. The properly dried root yields in the neighborhood of 40 per cent of extractive matter to water, whereas the fermented root yields only 13 per cent.—Apoth.-Ztg. 1920, v. 52, p. 465.

Bridel, M.: A note on the simultaneous occurrence of gentianose and saccharose in various species of gentian, namely, *Gentiana lutea*, G. *asclepiadea*, G. *punctata*, G. *cruciata*, and G. *purpurea*.—Compt. rend. soc. biol. 1920, v. 83, p. 24; J. pharm. et chim. 1920, v. 21, p. 306–311.

Éwe, George E.: One lot of gentian examined was very old and decayed.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

Bridel, Marc: Data are given showing the keeping qualities of some galenical preparations of gentian made with air-dried, unfermented gentian root. The extract and tincture prepared by percolation with 60 per cent alcohol were found to be superior to similar preparations made by maceration.—J. pharm. et chim. 1920, v. 22, p. 411–418.

GERANIUM, N. F.

Cabannes, E.: A contribution to the study of the physiological properties and posology of *Geranium maculatum*.—Bull. soc. pharmacol. 1920, v. 27, p. 22–25.

GLUCOSUM.

Gray, William: Both chemically pure and commercial glucose should be official in the U. S. P., as they are used extensively in hospitals for enemata and feeding purposes, as well as in the preparation of intravenous and hypodermic medicaments —J. Am. Pharm. Assoc. 1920, v. 9, p. 1087.

Porst, Chr. E. G.: It is recommended that chemically pure glucose be included in the U. S. P., as a very pure product is now available and chemically pure glucose can replace lactose in many pharmaceutical preparations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 419.

Porter, W. H.: Dextrose from corn is considered to be of different therapeutic availability than dextrose from other sources on account of its different chemical structure. It is found to be completely utilized.—Med. Rec. 1920, v. 98, p. 973–976.

Murschhauser, Hans. Data are given relative to the mutarotation of dextrose in alkaline solution, in solutions of secondary sodium phosphate, and under the influence of hydrochloric and sulphuric acids.—Biochem. Ztschr. 1920, v. 104, p. 213–236; v. 106, p. 23–36; v. 108, p. 181–192.

Bougault, J., and Perrier, J.: A study of the action of hydrocyanic acid in glucose.—J. pharm. et chim. 1920, v. 22, p. 129–136.

Cheinisse, L.: Notes on the use of intravenous injections of hypertonic glucose solutions in severe infectious diseases.—Presse médicale, 1920, v. 28, p. 206–208.

Wells, C. W., and Blankinship, R. C.: A report on the use of intravenous injections of hypertonic glucose solution in the treatment of pneumonia.—J. Am. M. Assoc. 1920, v. 74, p. 75.

GLYCERINUM.

Anon.: D. R. P. 314,446 describes a procedure for the concentration of glycerin. The glycerin is mixed with alcohol or other solvent and concentrated by congelation.—Rev. prod. chim. 1920, v. 23, p. 165.

Zimmermann, Walther: A study of the physical and chemical properties of glycerin, with special reference to the detection of impurities.—Apoth.-Ztg. 1920, v. 35, p. 283–285.

Kellner, J.: It is recommended that a viscosity test be added to the tests for glycerin in the Ph. Germ., as a test of this nature will serve to detect the presence of certain organic impurities not provided for at present.—Chem. Umschau, 1920, v. 27, p. 230.

Anon.: A description of a distillation method for the determination of glycerin.—Seifenfabrik. 1920, v. 40, p. 373–374.

Wolff, H.: Methods for the determination of glycol in the presence of glycerin are described.—Chem. Umschau, 1920, v. 27, p. 112.

Roberts, J. G.: One lot of glycerin examined was considered undesirable because of its decided yellowish color. It answered all other U. S. P. requirements.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

Zimmermann, W.: Five samples of glycerin examined were found to contain arsenic, 0.00375 to 0.225 parts per liter, hydrochloric acid, lead, and reducing substances. Some of the samples were yellowish-brown in color and had a pronounced odor.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 45.

Neuberg, C., and Reinfurth, E.: Notes on alkali lactates as substitutes for glycerin. Tables and curves are given showing the essential physical constants of per- and perka-glycerin, such as the freezing and boiling points, hygroscopicity and viscosity, which vary with the concentration.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 1783–1791.

Dulière, Walter: A German substitute for glycerin was found to consist principally of a solution of dipotassium tartrate. The amount of the latter present was found to be 56.89 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 474–475.

GLYCERITUM ACIDI TANNICI.

Committee on U. S. P., Philadelphia Coll. Pharm.: The direction to strain glycerite of tannic acid through cotton, while warm, is impracticable. The agitation of the mixture in a wide-mouthed bottle is also difficult. It would be better to stir it with a heavy glass rod or wooden paddle.—Am. J. Pharm. 1920, v. 92, p. 557.

GLYCYRRHIZA.

Rusby, H. H.: Glycyrrhiza should be referred to the family *Papilionaceæ*. In the case of this drug it is mere servility to blind leadership that has led our committee to call *Glycyrrhiza glandulifera*, a variety of *G. Glabra*. Even those who do not know the plants ought to be able to recognize the fact that the marked differences in the characters of the two roots prove specific distinction between the plants yielding them.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

Anon.: Statistics are given on the sources of supply and on the importation of licorice root for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 24–26.

Lampa, Robert R.: The average ash content of licorice root found on the market is 10.50 per cent. The U. S. P. allows not over 7 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

GOSSYPII CORTEX, N. F.

Rusby, H. H.: The botanical source of cotton-root bark should be given as *Gossypium hirsutum* L.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Eckler, Charles R.: A report of a pharmacological study of cotton-root bark. Four methods were employed in testing the activity of the drug. The activity of the drug as shown by these tests was not comparable to that possessed by ergot.—Am. J. Pharm. 1920, v. 92, p. 285–304.

GOSSYPIUM PURIFICATUM.

Clark, A. W., et al.: A discussion of purity standards for absorbent cotton. Standards suitable for the forthcoming revision of the U. S. P. are suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 958–965.

Kilmer, Frederick B.: Notes on the U. S. P. test for cotton. Analytical data are presented in the form of a table.—J. & J. Lab. Notes. 1920, No. 2, p. 36–39.

GRANATUM.

Auenmüller: Results obtained in an effort to determine the best method for the assay of pomegranate are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 451–452.

Dohme and White: Data are given showing the results obtained in the assay of pomegranate by the methods of the Swiss and German pharmacopœias. The method of the German pharmacopœia is found to be the more satisfactory.—Proc. Am. Drug Mfg. Assoc. 1920, p. 266–267.

Tanret, G.: The statements of Hess and Eichell with regard to the optical activity of pelletierine and methylpelletierine are controverted and the correctness of the original observations of C. Tanret is maintained.—Compt. rend. acad. sc. 1920, v. 170, p. 1118.

Tanret, G.: A summary of the research work on the alkaloids of pomegranate.—Bull. sc. pharmacol. 1920, v. 27, p. 486–493.

GRINDELIA.

Rusby, H. H.: Owing to the great uncertainty as to the botanical source of any particular lot of grindelia, coupled with the fact that preparations of all the species are practically identical in character, it seems unwise to name the species. It would not be a bad idea to specify a minimum amount of oleoresinous extractive to be yielded through a specified process of extraction. There actually is a wide variation in the quality of commercial lots, but this is quite as likely to exist between two lots of the same species as those of two different species.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Éwe, George E.: Four lots of grindelia examined contained excessive amounts of stems, ranging from 36.5 per cent to 70.0 per cent, whereas the U. S. P. allows only 10 per cent. One lot examined consisted of *Grindelia robusta*, which is no longer official.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

GUAIACOL.

Cofman-Nicoresti, Jules: Five commercial samples of guaiacol showed a specific gravity of 1.111 to 1.13, while the Ph. Brit. requires 1.16 to 1.20. The latter requirement exceeds any number for this constant on record and is, perhaps, a misprint. The real value for specific gravity is probably 1.143.—Pharm. J. 1920, v. 104, p. 26.

GUAIACOLIS CARBONAS.

Black, C. L.: It has been found that pure specimens of guaiacol carbonate may fail to give the test for guaiacol through the interference of minute quantities of acid taken up by the ether used for extraction. It is necessary to wash the ether and pass through a dry filter or, better still, use chloroform for the extraction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

GUAIACUM.

Grant, E. H.: Descriptions are given of two reactions of guaiac with sulphuric acid which may be used for its identification.—J. Am. Pharm. Assoc. 1920, v. 9, p. 704.

Éwe, Geo. E.: It is recommended that the alcohol solubility requirement for guaiac be reduced from 85 per cent to 80 per cent, as it appears to be difficult to obtain the former grade on the market.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

Gloor, F.: Ten samples of guaiac examined yielded ash ranging from 1.0 per cent to 5.5 per cent. The alcohol-soluble matter contained in these samples ranged from 72.2 per cent to 93.7 per cent. The U. S. P. permits 4 per cent ash and 85 per cent alcohol-soluble matter.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

GUARANA.

Rusby, H. H.: So far as we can learn, from the descriptions of those familiar with the process of preparing guarana, the present definition is faulty in various ways. Not "the seeds," but their kernels—that is, the seeds deprived of their testa—are present in the product, and these have been subjected to a roasting process before being moulded into rolls. If this information is correct, the definition should read: "A dried paste consisting chiefly of the crushed or powdered roasted kernels of the seeds," etc.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Gane, E. H.: It is suggested that guarana be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366-370.

Mittelbach, Wm.: It is suggested that guarana be deleted from the U. S. P., as it is but seldom used at present.—Proc. Missouri Pharm. Assoc. 1920, p. 55.

Ugarte, Trifón: A concise description of a method for the determination of caffeine in yerba mate, coffee, tea, kola nut, and guarana. Comparative data are given showing the results obtained by the method of Paul and Cownley and by the sublimation method.—Anal. soc. quim. Argentina, 1920, v. 8, p. 413–415.

Éwe, George E.: Two samples of guarana examined were above the U. S. P. standard of 4 per cent caffeine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

HAMAMELIDIS FOLIA, N. F.

Éwe, George E.: One lot of witch hazel leaves examined was rejected because of the excessive proportion of stems present.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 120.

HELONIAS, N. F.

Lampa, Robert R.: The average ash content of helonias root on the market is 19.55 per cent. The N. F. allows not over 5 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

HEXAMETHYLENAMINA.

Herzog, W.: Hexamethylenamine is prepared by treating a 40 per cent solution of formaldehyde with ammonium carbonate in the cold, evaporating the solution and subliming the residue under reduced pressure.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 48.

Sander, A.: The formation of hexamethylenamine by the cold treatment of an ammonium salt with an excess of formaldehyde is not confined to ammonium carbonate but occurs with most ammonium salts.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 84.

Anon.: The new supplement to the Ph. Fr. states that a 5 per cent aqueous solution of hexamethylenamine yields a white precipitate on the addition of tannic acid and of mercuric chloride. The same solution yields a white precipitate on the addition of silver nitrate, which is soluble in an excess of hexamethylenamine. It is required to dissolve in sulphuric acid without coloration. It is further tested for the absence of sulphuric acid, hydrochloric acid, heavy metals and ammonium salts. The ash on incineration should not exceed 0.1 per cent.—Chem. & Drug. 1920, v. 92, p. 456.

Andrews, L. T.: A method of assay for hexamethylenamine is suggested and a description of the method is given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

Emery, W. O.: A study of an adapted method for hexamethylenamine in pharmaceutical practice based on its hydrolysis to formic acid and ammonia and the subsequent determination of the formic acid formed.—J. Assoc. Off. Agric. Chem. 1920, v. 3, p. 374–378.

Shohl, Alfred T., and Deming, Clyde L.: Formaldehyde solutions of 1:5,000 to 1:10,000 will kill 80 to 90 per cent of *B. coli* in two hours at body temperature. The rate of transformation and the amount of formaldehyde formed from hexamethylenamine depend on the hydrogen-ion concentration of the urine. The latter must have an acidity of p_H 5.4 to obtain 80 to 90 per cent antisepsis in two hours.—J. Urol. 1920, v. 4, p. 419–435.

Patein, G.: A report of cases of intoxication following the administration of large doses of urotropin.—Bull. l'Acad. méd. 1920, p. 443, through J. pharm. et chim. 1920, v. 22, p. 190–192.

HOMATROPINÆ HYDROBROMIDUM.

Clay, Joseph V. F.: A detailed account of unusual, marked systemic disturbances produced in a man by the installation of one drop of a 1 per cent solution of homatropine hydrobromide in each conjunctival sack followed by a second installation 15 minutes later.—Hahnemann. Month. 1920, v. 55, p. 690–692.

HUMULUS.

Hommell, P. E.: Hops should be embodied in the N. F. with lupulin and the different preparations of hops. None are employed to any great extent, yet to this drug can be ascribed valuable medicinal properties.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Lüers, H., and Baumann, A.: A report of colloidal chemical studies on the bitter acids of hops.—Kolloid-Ztschr. 1920, v. 20, p. 202–212.

HYDRANGEA, N. F.

Lampa, Robert R.: The average ash content of hydrangea root found on the market is 5.25 per cent. The N. F. allows not over 3 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E.: One lot of hydrangea examined was mouldy, due to improper drying.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

HYDRARGYRI CHLORIDUM CORROSIVUM.

Kolthoff, I. M., and Keijzer, J.: The methods of Rupp, Smith and Morawitz for the analysis of mercuric chloride have been studied and are commented on.—Pharm. Weekblad, 1920, v. 57, p. 913–919.

Sasse, O.: The author calls attention to the fact that he published a method for the volumetric determination of mercuric chloride, depending upon the titration with potassium iodide solution, in the *Pharm. Ztg.* for 1881.—Pharm. Ztg. 1919, v. 64, p. 633.

Chateau, H.: An investigation of volumetric methods for the quantitative determination of mercuric chloride, with special reference to its estimation in mercuric chloride papers. The method of Beckurts and P. Nehring is recommended as being the most suitable for this purpose.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 16–20.

Laird, J. S.: The solubility at 18° C. and the toxicity of mercuric chloride in solutions containing from 10 to 51 per cent by weight of alcohol were determined. The results show that there is a pronounced minimum of solubility in 24 per cent alcohol corresponding closely to the maximum toxicity observed by Paul and Kronig.—J. Phys. Chem. 1920, v. 24, p. 736–737.

Bland, P. Brooke: A report of two fatal cases of poisoning resulting from vaginal injections of mercuric chloride.—J. Am. M. Assoc. 1920, v. 74, p. 1227–1229.

HYDRARGYRI CHLORIDUM MITE.

Anon.: In a discussion of the U. S. P. method for the assay of calomel, it is stated that there is not a sufficient excess of iodine added. The method gives more satisfactory results if the quantity of calomel is reduced or N/5 iodine solution used.—Proc. Am. Drug Mfg. Assoc. 1920, p. 238–240.

Arny, H. V.: The official method for the estimation of calomel is stated not to give satisfactory results in the assay of calomel tablets. Better results are obtained if only half the amount of calomel directed to be taken for the assay be used.—J. Am. Pharm. Assoc. 1920, v. 9, p. 973.

Beinhaufer, L. G.: A study of the effect of therapeutic doses of calomel on the kidneys and the duration of its excretion.—Am. J. Med. Sci. 1920, v. 159, p. 897–899.

Gordin, A. E.: Several cases of severe mercurial stomatitis caused by the administration of calomel are reported.—J. Am. M. Assoc. 1920, v. 74, p. 1163.

HYDRARGYRI IODIDUM FLAVUM.

Hill, J. R.: The name mercurous iodide is given by various pharmacopœias to two different substances, the yellow iodide and the green iodide. It is recommended that the British Pharmacopœia recognize only the yellow iodide since it is more uniform in composition and stable when protected from the light.—Pharm. J. 1920, v. 104, p. 303–304.

Verfürth, Johann: D. R. patent No. 315658 describes the preparation of yellow mercuric iodide which will not revert to the red iodide on standing.—Chem.-Ztg. 1920, v. 44, No. 26, p. 66.

HYDRARGYRI IODIDUM RUBRUM.

Tammann, G.: A colorless form of HgI_2 can be obtained by heating HgI_2 to 300–350° C. in a glass tube connected with a receiver and suddenly diminishing the pressure to 0.1 atmosphere. The HgI_2 condenses to a colorless snow, which changes in a few minutes to the red form.—Ztschr. anorg. Chem. 1920, v. 109, p. 213–214.

Hamilton, Herbert C.: Data relative to the germicidal value of mercuric iodide alone and associated with soap are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 497–501.

Spittel, R. L.: The use of intravenous injections of mercuric iodide is recommended for the treatment of syphilis.—Lancet (The), London, 1920, v. 1, p. 378.

HYDRARGYRI SALICYLAS.

Dohme, A. R. L.: It is suggested that the assay process for mercuric salicylate be simplified as follows: Treat a weighed amount of the salt with sulphuric acid and nitric acid and titrate the solution thus obtained with potassium sulphocyanide as directed under mercury.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

HYDRARGYRUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: No purity rubric of 99.5 per cent or an assay is needed for mercury. If the mercury is of the proper appearance, it is necessarily more than 99.5 per cent pure; in fact, it is nearly 100 per cent pure.—Am. J. Pharm. 1920, v. 92, p. 551.

Bouton, C. M., and Duschak, L. H.: Details of equipment and procedure for the determination of mercury by titration with potassium thiocyanate, using ferric sulphate or nitrate as indicator, are given. A bibliography on analytical methods for mercury determinations is appended.—U. S. Bureau of Mines, 1919, Tech. Paper No. 227.

Low, A. H.: The thiocyanate titration of mercury is stated to be satisfactory if chlorine and bromine are absent. The procedure is described in detail.—Chem.-Analyst, 1920, v. 29, p. 13–14.

Bollinger, C. H., and Terry, R. W.: The presence of bismuth interferes with the iodide test for mercury. This can be overcome by dissolving out the mercury from a mixture of the chlorides with ether.—Midl. Drug. 1920, v. 54, p. 377.

Wöber, A.: A note on the determination of mercury in organic compounds by Rupp's iodometric method.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 63–64.

François, Maurice: The application of the author's zinc foil method for the determination of mercury to the quantitative estimation of mercury in organic combinations is described.—Répert. pharm. 1920, v. 32, p. 202–204; J. pharm. et chim. 1920, v. 21, p. 85–91.

Gordon, H. B.: Mercury in dilute solutions is determined by depositing it on copper gauze, which is then weighed, heated in an atmosphere of hydrogen, and weighed again. The loss in weight represents the mercury deposited. The detection of 0.1 g. of mercury in 2 liters of solution is possible by this method.—Analyst (The), London, 1920, v. 45, p. 41–46.

Denigès, G.: A description of microchemical methods for the identification of soluble and insoluble mercury compounds. The mercury compounds are converted into the iodide by suitable methods and the iodide then identified by examination under the microscope.—Bull. soc. pharm. Bordeaux, 1919, v. 57, No. 2, through Ann. chim. anal. chim. appl. 1920, v. 1, p. 383–385.

Irving, G.: Good results in the prevention of mercurialism have been obtained by the administration of sublimed sulphur by mouth.—Brit. M. J. 1920, v. 1, p. 149.

HYDRARGYRUM CUM CRETA.

Boa, Peter: Some observations on a rapid method for preparing gray powder. The mercury is hardened by the cooling effect produced on the addition and evaporation of ether.—Pharm. J. 1920, v. 104, p. 200–201.

Dott, D. B.: The action of ether in aiding the extinction of mercury in the preparation of mercury with chalk is not mechanical but is due to the formation of oxide by the peroxide present as an impurity in the ether. Ether which does not give a test for peroxide is found to be of no value for this purpose.—Pharm. J. 1920, v. 104, p. 302.

HYDRASTINA.

Rusby, H. H.: When hydrastine is of synthetic origin the label should be required to so state.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Burdick, Alfred S.: It is stated that the reaction of a saturated solution of hydrastine in alcohol is practically neutral to litmus paper, not alkaline.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310.

HYDRASTINÆ HYDROCHLORIDUM.

Keenan, F. J.: One lot of hydrastine hydrochloride examined gave the following on analysis: anhydrous hydrastine hydrochloride, 92.81 per cent: water, 2.27 per cent: ash, 2.50 per cent: and berberine hydrochloride, by difference, 2.42 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 113.

HYDRASTIS.

Hommell, P. E.: Hydrastis is a valuable drug and always will be. The fluidextract is prescribed most, the extract, tincture, and glycerite not so much.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Wallner, Rudolf: An account of experiments in the cultivation of *Hydrastis canadensis* in Esthonia and Russia.—Bull. sc. pharmacol. 1920, v. 27, p. 72–78.

Viehoever: Analytical data are given showing the moisture content, alkaloid content, and ash content of commercial samples of hydrastis, also the proportion of rhizome to roots. A maximum limit of 8 per cent for total ash and 3 per cent for acid-insoluble ash is proposed. The raising of the minimum alkaloid content to 2.75 per cent of ether-soluble alkaloids is suggested.—J. Am. Pharm. Assoc. 1920, v. 9, p. 779–784.

Éwe, Geo. E.: The standard of 2.5 per cent ether-soluble alkaloids for hydrastis appears to be low. In 60 assays made during the period 1911 to 1919 the average per cent of ether-soluble alkaloids ranged from 3.29 per cent to 4.20 per cent. A higher standard appears to be desirable to accord with the market quality of this drug.—J. Am. Pharm. Assoc. 1920, v. 9, p. 310–311.

Auenmüller: Results obtained in an effort to determine the best method for the assay of hydrastis and its preparations are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 452–453.

Wattiez, N.: Results obtained with the use of silicotungstic acid in the determination of hydrastine in hydrastis and its preparations are reported.—J. pharm Belg. 1920, v. 2, p. 817–819.

Éwe, George E.: Seven samples of hydrastis examined were above the U. S. P. standard of 2.5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Wasicky, R.: The biochemical study of *Erodium cicutarium* has shown that this plant, which has been proposed at various times as a substitute for hydrastis, contains no organic substances which act upon the uterus like hydrastis. However, it has a pronounced peripheral stimulating action on the uterus and increases its tonus and activity. It should be classed with plants such as urtica, senecio, and shepherd's purse.—Wien. klin. Wchnschr. 1919, v. 32, p. 1: Chem. Abstr. 1920, v. 14, p. 313.

HYOSCYAMUS.

Engelhardt, H.: It is suggested that the official allowance of 10 per cent of stems to the leaves of hyoscyamus should be considerably extended and that 20 to 30 or even 50 per cent of stems should be allowed. It has been shown that the stems contain a fair amount of alkaloids and when mixed with the leaves still yield a drug which contains more alkaloids than officially required. Probably it would be possible to use the whole herb, instead of the leaves plus 10 per cent or more of stems.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

Éwe, Geo. E.: It is suggested that the whole dried plant, either with or without the root, harvested in the flowering or fruiting stage and before the plant has matured and dried, should be made official instead of only the leaves and flowering and fruiting tops. The cost of U. S. P. hyoscyamus would be reduced, since the harvesting is simplified, and an increased supply is made available.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

Koch, George P.: It is recommended that the primary and secondary stems be permitted in conjunction with the leaves of belladonna, stramonium, and hyoscyamus.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

Rusby, H. H.: Hyoscyamus should include stems not above 7 mm. thick.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Auenmüller: Results obtained in an effort to determine the best method for the assay of hyoscyamus and its preparations are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 452.

Roberts, J. G.: The amount of mydriatic alkaloids found in various samples of hyoscyamus examined ranged from 0.03 per cent to 0.08 per cent. Only one lot complied with the U. S. P. requirement of "not less than 0.065 per cent of alkaloids." In each instance the ash content was below 30 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 113.

Éwe, George E.: Of 10 samples of hyoscyamus examined, 9 were above and 1 was below the U. S. P. standard of 0.065 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 1921.

HYPOPHYSIS SICCA.

Fenger, F., and Hull, Mary: Evidence is furnished which indicates that the uterus-contracting active principle of the pituitary does not occur in the fresh gland in free or crystalline form, but is linked to, or is a part of, some protein complex. Treatment with hot 95 per cent alcohol splits this complex and furnishes a highly active product.—J. Biol. Chem. 1920, v. 42, p. 153–158.

Crawford, A. C.: Chemical details are given whereby a white amorphous powder was obtained from posterior lobes of the pituitary glands of cattle. This substance produced a marked pressor action and when freshly dissolved in water gave no Pauly reaction.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 91–94.

Abel, John J., and Nagayama, T.: The presence of histamine in the extracts of the posterior lobe of the pituitary gland is demonstrated and some preliminary experiments with the pressor constituent are reported. Tentative opinions are expressed as regards the chemical nature of the pressor substance.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 347–399.

Seaman, E. G.: From the results obtained in three assays, it is concluded that iodine is not present in the pituitary bodies of the sheep.—J. Biol. Chem. 1920, v. 43, p. 1.

Ascoli, M., and Fagiuoli, A.: A test for pituitrin similar to that devised by the authors for adrenaline is described.—Endocrinology, 1920, v. 4, p. 33–36.

Trendelenburg, Paul, and Borgmann, Ernst: A report of experiments in the standardization of pituitary extracts against β-imidazoylethylamine hydrochloride, using the guinea pig uterus method. The commercial products examined were found to be unreliable.—Biochem. Ztschr. 1920, v. 106, p. 239–253.

Richter, E.: A report of studies on the biochemistry of hypophysis, suprarenal, and thyroid glands.—Deutsch. med. Wchnschr. 1919, v. 45, p. 709.

Tucker, B. R.: Pituitary gland was fed in 200 cases of epilepsy with beneficial results, not infrequently leading to cure.—Arch. Neur. Psych. 1919, No. 2, p. 192–200, through Chem. Abstr. 1920, v. 14, p. 766.

ICHTHYOL (NONOFFICIAL).

Anon.: Deposits of ichthyolic schistes, yielding an ichthyol of the same quality as that obtained in the Tyrol, are reported to have been discovered in Italy.—J. pharm. Belg. 1920, v. 2, p. 58.

Thompson, Wm. J.: Analytical data are given showing the composition of ichthyol and its various substitutes, special reference being made to the sulphur content.—Proc. New York Pharm. Assoc. 1920, p. 198–199.

Anon.: A table is given showing the difference in the chemical composition of ichthyol and some of its substitutes.—Merck's Report, 1920, v. 29, p. 13.

Scheibler, H.: The purification of shale oils (ichthyols) rich in sulphur for medicinal purposes is described. Homologs of thiophene appear to be the active sulphur constituents of the ichthyols.—Arch. Pharm. 1920, v. 258, p. 70–84; Pharm. Monatsh. 1920, v. 1, p. 182.

Chistoni, Alfredo: Solutions of alkaline sulphoichthyolates show a marked anticoagulating action on blood, both *in vitro* and *in vivo*.—Arch. farm. sper. 1919, v. 28, p. 125–138.

IGNATIA, N. F.

Éwe, George E.: Four samples of ignatia examined were above the N. F. standard of 2 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

INFUSUM DIGITALIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the 10 per cent of alcohol heretofore directed for infusion of digitalis be reintroduced because the infusion as now prepared often ferments before the patient can use all of it, and the small percentage of alcohol is not objectionable.—Am. J. Pharm. 1920, v. 92, p. 557.

Pomeroy, Clayre A., and Heyl, Frederick W.: An investigation of the stability of infusion of digitalis. The infusion deteriorates and should be discarded in 3 to 5 days' time. The addition of alcohol does not add to the stability of the preparation.—Am. J. Pharm. 1920, v. 92, p. 394–401.

Toplis, Wm. G.: Results of experiments indicate that molds and not yeasts are responsible for the decomposition of infusion of digitalis.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 276–277.

INFUSUM SENNÆ COMPOSITUM.

Gane, E. H.: It is suggested that compound infusion of senna be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

IODUM.

Oliveri-Mandala, E., and Angenica, A.: A report of studies on the solubility of iodine in hydriodic, hydrobromic, and hydrochloric acids, and the formation of the corresponding polyhalogenated acids. The results in general indicate that the solubility of iodine in the halogen acids and their corresponding alkali salts is specific for the halogen ion and is independent of the positive ion.—Gaz. chim. ital. 1920, v. 50, part 1, p. 273–281.

Walker, George: For the purpose of insuring accuracy in the dosage of iodine when administering tincture of iodine, the solubility of iodine in alcohols of different strengths has been determined—Pharm. J. 1920, v. 106, p. 45.

Compton, K. T., and Smyth, H. D.: Studies on fluorescence, dissociation, and ionization in iodine vapor.—Science, 1920, v. 51, p. 571–572.

van der Wielen, P., and Wientjes, K.: A study of the U. S. P. method for the determination of iodine in certain drugs as compared with Oswold's revised method which is official in the Ph. Ndl.—Pharm. Weekblad, 1920, v. 57, p. 703–707.

Epstein, Albert A.: An iodine preparation for intravenous and intraspinous use is prepared by dissolving native iodine in a solution of dextrin by means of pressure. Iodine thus brought into solution bears the approximate relation of 1 : 35 to the quantity of dextrin present. An abstract.—Science, 1920, v. 51, p. 21.

IPECACUANHA.

Anon.: Statistics are given on the sources of supply and on the importation of ipecac for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 36.

Rusby, H. H.: The author has not been able to find any publication of the name *Cephalis acuminata.* Karsten, Engler & Prantl refer the plant to *Psychotria emetica* Mutis, but it is certainly not a Psychotris. The plant itself must be secured and studied.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Chevalier, Aug., and Lahille, A.: A discussion of the possibility of the successful cultivation of ipecac in Indo-China.—Bull. agric. de l'Inst. sc. de Saigon, 1919, v. 1, p. 225–231, through Bull. Agric. Intell. 1920, v. 11, p. 55–56.

Viehoever, Arno: The adulteration of ipecac (*Cephaelis ipecacuanha*) with *Heteropteris pauciflora*, *Ipecacuanha fibrosa*, and *Ionidium* species is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

Ewe, George E.: One sample of ipecac examined was above the U. S. P. standard of 1.75 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Huerre, R.: Deemetinized ipecac is found to be of value in the treatment of dysentery. The action is attributed to the ipecachuanic acid. Analytical data are given showing the ipecachuanic acid content of natural and deemetinized ipecac.—Bull. gén. Therap. 1920, v. 171, p. 379–385.

Fromaget and Harriet: Experiments show that the administration of ipecac for several months causes a diseased condition similar to that of trachoma.—Zentralbl. Biochem. u. Biophys. 1918, v. 19, p. 383, through Chem. Abstr. 1920, v. 14, p. 3463.

IRIS, N. F.

Anon.: Statistics are given on the sources of supply and on the importation of orris root for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 44.

Farwell, O. A.: The blue flag of commerce during the past quarter century has been chiefly, if not wholly, the rhizomes of *Iris* *caroliniana* Watson. The distinguishing characteristics of *Iris caroliniana* and *Iris versicular* are described.—Nat. Druggist, 1920, v. 50, p. 171.

JALAPA.

Anon.: Statistics are given on the sources of supply and on the importation of jalap for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 38–39.

Anon.: The importation of jalap root from Brazil is reported. This drug is stated to be superior in quality to that grown in Mexico.—Drug & Chem. Markets, 1920, v. 7, p. 185.

Anon.: A shortage of jalap is to be expected on account of the recent earthquake in the State of Vera Cruz, Mexico. The principal towns from which any notable quantity of jalap root is shipped are San Miguel, Xico, and Coscomatepec, which are all in the district where greatest damage has been done.—Drug & Chem. Markets, 1920, v. 6, No. 4, p. 159.

Anon.: It is stated that a German firm has been shipping jalap root to the United States under the name of canaigre root.—Drug & Chem. Markets, 1920, v. 6, p. 700.

Grant, E. H.: A new test for the identification of jalap is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 763.

KAOLINUM, N. F.

Bernaola, Victor J.: Notes on the origin and physical constitution of kaolin.—Anal. soc. quim. Argentina, 1920, v. 8, p. 292–400.

Schurect, H. G.: Data obtained in elutriation tests conducted on a number of samples of American and foreign kaolins are presented.—J. Am. Ceram. Soc. 1920, v. 3, p. 440–447, through Chem. Abstr. 1920, v. 14, p. 2691.

Lowe, C. B.: A short paper dealing with the use of clay as a remedial agent.—Am. J. Pharm. 1920, v. 92, p. 230–234.

Hayem: Kaolin has been successfully used as a substitute for bismuth subnitrate in gastric disturbances. The dosage is the same in both cases.—Bull. de l'Académie de medecine, 1920, April 13, through New York M. J. 1920, v. 112, p. 41.

KINO.

Rusby, H. H.: The plant yielding kino should be referred to the family *Papilionaceæ*. The statement that kino is the "spontaneously dried juice" appears to lack support. It is claimed by writers on Indian products that the juice is evaporated by artificial heat in shallow pans.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Riley, W. M.: Six samples of kino examined yielded ash ranging from 0.73 to 0.85 per cent. The content of alcohol-soluble matter ranged from 86.4 to 98.9 per cent. The U. S. P. allows 3 per cent ash and 45 per cent alcohol-soluble matter.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 113.

KOLA, N. F.

Anon.: According to the new supplement to the Ph. Fr., the use of kola nuts from species or varieties other than *Cola acuminata* is permitted, provided that they have a content of at least 1.25 per cent of caffeine.—Chem. & Drug. 1920, v. 92, p. 456.

Meillere, G.: A method is described for the determination of caffeine in saccharated kola and the extract of kola.—J. pharm. et chim. 1920, v. 22, p. 18–19.

Ewe, George E.: Of 18 samples of dried kola nuts examined, 14 were above and 4 were below the N. F. standard of 1.5 per cent caffeine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

KRAMERIA, N. F.

Ruiz and Pavon: An examination of the rhizome of *Polygonum bistorta* L. showed the presence of 18.25 per cent of tannic acid. It is, therefore, concluded that the rhizome is a satisfactory and economical substitute for krameria.—J. pharm. Belg. 1920, v. 2, p. 876–878.

LAC FERMENTATUM, N. F.

Harrisson, Joseph W. E., and Griffith, Ivor: It is suggested that the use of fresh cow's milk be specified in the N. F. directions for the preparation of fermented milk. Methods for the determination of alcohol and reducing sugars in this preparation are described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 514–515.

Wolff, G.: A general discussion of alcoholic milk products such as kefir, kumys, and yoghurt.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 239–244, 254–256.

LACTUCARIUM.

Gane, E. H.: It is suggested that lactucarium be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LAC VACCINUM, N. F.

von Sobbe: The Fleischmann, Ambühl, and Herz formulas are compared with the actual gravimetric determination of total solids in milk. No great differences are found.—Milch. Zentr. 1920, v. 49, p. 166–168, through Chem. Abstr. 1920, v. 14, p. 3480.

Lüning, O.: The formulas of Bourcart-Moslinger, Höyberg, and Leys for the calculation of dry matter in milk were found to be identical and can be expressed thus: $T=250\ (S-1)+1.25\ F$, where T=dry matter, S, the specific gravity, and F, the per cent by weight of fat.—Ztsch. Unters. Nahr.-u. Genussm. 1920, v. 39, p. 96–98.

Reiss, F.: The influence of paraffin on the Gerber method for the determination of fat in milk is discussed.—Milchwirtsch. Zentr. 1918, v. 47, p. 52–54, through J. Soc. Chem. Ind. 1918, v. 37, p. 346A.

Cooledge, L. H., and Wyant, R. W.: A scientific discussion of the keeping quality of milk as judged by the colorimetric hydrogen-ion determination.—J. Dairy Sci. 1920, v. 3, p. 156–166, through Chem. Abstr. 1920, v. 14, p. 2386.

Seligmann, Erich: The occurrence of coagulation in milk on boiling or after the addition of a certain amount of alcohol is a test for the age of milk.—Ztschr. Hyg. 1919, v. 88, p. 333–345, through Chem. Abstr. 1920, v. 14, p. 1717.

Aschenheim, E., and Stern, G.: A report of a study of the influence of various carbohydrates on the curdling of milk.—Biochem. Ztschr. 1920, v. 102, p. 98–124.

Hastings, E. G., and Davenport, Audrey: A report of an investigation to determine the relative value of the methylene blue reduction test, the bromothymol blue test, and the bromocresol purple test in determining the keeping quality of milk. The methylene blue reduction test is found to be preferable to the others because of its simplicity and practicability.—J. Dairy Sci. 1920, v. 3, p. 353–366.

Lind, C.: A report of studies to determine the value of the methylene blue reduction test as compared with the plate method for determining the quality of milk with respect to the microorganism content. An abstract.—Abstr. Bact. 1920, v. 4, p. 184.

DeVries, J. J. O.: An investigation of the value of bromocresol purple for the detection of abnormal milk. A grayish-blue color indicates normal milk, a dark blue color is evidence of a milk with a lower content of acid, and a light green to light yellow color indicates a milk with a higher acid content. An abstract.—Analyst (The) London, 1920, v. 45, p. 450.

Bouin: A new criterion for judging the quality of milk. By adding to the weight of the lactose hydrate contained in a liter of milk 5 times the weight of the crude ash a constant is obtained which can be used in determining purity of milk.—Compt. rend. soc. biol. 1920, v. 83, p. 1635.

Grossfeld, J.: Notes on the advantages of spontaneous serum of milk in the judging of milk adulterations.—Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 39, p. 140–145.

Van Slyke, L. L., and Keeler, R. F.: The determination of the carbon dioxide content of milk is recommended as a basis for distinguishing between heated and unheated milk.—New York Agric. Exper. Sta. Bull. 1920, No. 78, p. 1–7, through Chem. Abstr. 1920, v. 14, p. 2664.

Rahn, O.: Results obtained in an investigation of the reductase test for determining the quality of milk show that this test is not as reliable as that given by a chemical and bacteriological examination.—Milchwirtschaft. Zentr. 1920, v. 49, p. 287–290, through Chem. Abstr. 1921, v. 15, p. 21–31.

Utz: The refractometer value of milk serum is reported to afford more trustworthy evidence of the presence of added water than does the specific gravity; the lowest value for genuine milk is 51.0 scale degrees.—Milcher. Zentr. 1920, v. 49, p. 137–143, through J. Soc. Chem. Ind. 1920, v. 39, p. 608A.

Vandevelde, A. J. J.: A method for the detection of added sodium carbonate in milk is based on the relation between the amount of alkali metals and of phosphoric acid present in the ash.—Bull. acad. roy. Belgique, Classe des sciences, 1919, v. 29, p. 52–54, through Chem. Zentralbl. 1920, v. 91, part 2, p. 648.

Rossi, A.: The presence of formaldehyde in milk may be detected by carefully adding 2 to 2.5 cubic centimeters of milk to 2 cubic centimeters of sulphuric acid and then shaking the tube vigorously. The liquid immediately assumes a more or less intense violet color.—Boll. chim.-farm. 1920, v. 59, p. 265–268.

Porcher, Ch.: An investigation to determine the influence of added formaldehyde solution on the reducing power of milk.—Ann. Falsif. 1920, v. 13, p. 35–37.

Fouassier, M.: The detection of hydrogen peroxide in pasteurized milk by means of tincture of guaiac is described.—Ann. chim. anal. chim. appl. 1920, v. 2, p. 9–11; Compt. rend. acad. sc. 1920, v. 170, p. 145–148.

Hinard, G.: Studies are reported on the composition and analysis of milk preserved with dichromate.—Ann. Falsif. 1920, v. 13, p. 463–474.

Marfan, A. B.: A report of researches on the peroxidase of milk.—J. physiol. et path. gén. 1920, v. 18, p. 985–995.

Janke, A.: A review of the third edition of a book by Chr. Barthel entitled *Methods for the Investigation of Milk and Dairy Products*.—Oesterr. Chem.-Ztg. 1920, v. 23, p. 154–155.

LEPTANDRA, N. F.

Grant, E. H.: A new test for leptandra is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 763.

Lampa, Robert R.: The average ash content of culver's root found on the market is 22.90 per cent. The N. F. allows not over 12 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

LIMONIS CORTEX.

Rusby, H. H.: If the fresh rind of lemon is required, that fact is not stated by saying "the rind of the fresh fruit," for such a rind could be dried after it was removed from the fresh fruit. We should say "the fresh rind."—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 243.

Linde, O.: The title for lemon peel, "Cortex Citri Fructus," given in the Ph. Germ. should be changed to "Pericarpium Citri."—Apoth.-Ztg. 1920, v. 35, p. 450.

LINIMENTA.

Kyser, E. V.: It is suggested that the dried soap directed by the U. S. P. to be used in the preparation of soap liniment, liniment of soft soap, and chloroform liniment, be supplanted by soft soap.—Am. Perf. 1920, v. 15, p. 76; J. Am. Pharm. Assoc. 1920, v. 9, p. 496.

LINIMENTUM AMMONIÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: Peanut oil can very satisfactorily replace oil of sesame in ammonia liniment. The latter oil is difficult to obtain and expensive, as it is imported, and peanut oil produces a superior emulsion and is an American product.—Am. J. Pharm. 1920, v. 92, p. 557.

Lewyn, I.: It is recommended that peanut oil be used in the preparation of ammonia liniment instead of sesame oil. Sesame oil is more expensive and deteriorates more rapidly.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Lascoff, J. L.: Soap liniment should be substituted for camphor liniment in the preparation of belladonna liniment. The formula should be further changed so that the finished product will contain 50 per cent of fluid extract of belladonna.—Drug. Circ. 1920, v. 64, p. 170.

Anon.: Twenty-one cases of poisoning by belladonna liniment were reported for Great Britain during the period 1910 to 1919, 17 from taking by mistake and 4 with suicidal intent.—Pharm. J. 1920, v. 105, p. 336.

LINIMENTUM CALCIS.

Kyser, E. V.: It is recommended that soya-bean oil be substituted for linseed oil in the preparation of lime liniment.—Am. Perf. 1920, v. 15, p. 76; J. Am. Pharm. Assoc. 1920, v. 9, p. 496.

LINIMENTUM CAMPHORÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: Peanut oil can be used in camphor liniment to advantage, replacing the cottonseed oil, which is a semidrying oil and unsatisfactory for external application. It would be desirable to introduce here a more practical assay. The evaporation method is sufficiently accurate and may be easily applied without special apparatus.—Am. J. Pharm. 1920, v. 92, p. 557.

Lewyn, I.: It is recommended that peanut oil be used in the place of cottonseed oil in the preparation of camphor liniment. Peanut oil is more economical and gives a clear, stable product, whereas with cottonseed oil it often turns turbid or leaves a sediment: furthermore, cottonseed oil, as obtained in the market, is quite often mixed with other oils.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

Wickham, Edward A.: It is recommended that olive oil be used instead of cottonseed oil in the preparation of camphor liniment. Olive oil does not become "gummy" and can as safely be rendered sterile and would, no doubt, serve as well for hypodermic use.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Gerstner, Robert R.: It is suggested that a weaker camphor liniment prepared with a mineral oil base be made official in the U. S. P.—Am. Druggist, 1920, v. 68, No. 4, p. 58; J. Am. Pharm. Assoc. 1920, v. 9, p. 491–493.

Hommell, P. E.: It is believed that a working formula to produce a satisfactory sterilized camphorated oil for hypodermic use should be introduced into the U. S. P. The present 20 per cent camphor liniment should be retained: there is no need of a weaker one, as the physicians are satisfied with the one in use. The present base of camphorated oil should be changed to some other vegetable oil, but by no means should it be changed to a mineral oil.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Lascoff, J. L.: It is suggested that the amount of camphor in camphor liniment be reduced to 15 per cent or that the *modus operandi* be changed. These changes are proposed because it is difficult to prepare camphor liniment of the required strength by the present method.—Drug. Circ. 1920, v. 64, p. 169–170.

Dohme, A. R. L.: It is recommended that the limits of the requirement for camphor liniment should be more liberal. A procedure recommended for the assay of camphor liniment is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

Arny, H. V.: The polarimetric assay for camphor in camphorated oil is stated to be too time-consuming and to require too large an amount of the sample for practical purposes. The evaporation method of the German and Swiss pharmacopœias is stated to be satisfactory and more suitable from a practical standpoint.—J. Am. Pharm. Assoc. 1920, v. 9, p. 973.

Frary, Guy G.: Of 15 samples of camphorated oil examined 4 were not of U. S. P. quality.—Rep. South Dakota F. & D. Com. 1920, p. 52.

Bachman, Gustav: Of 13 samples of camphorated oil examined 5 were below the U. S. P. standard, containing 5.65, 6.7, 13.1, 13.2, and 16.1 per cent of camphor, respectively. The U. S. P. requirement is 19.5 to 20.5 per cent.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

LINIMENTUM CHLOROFORMI.

Lewyn, I.: The use of peanut oil instead of soap liniment in the preparation of chloroform liniment is recommended, as it is more economical and more stable and can be prepared instantly, thus preventing the evaporation of the chloroform.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

Gane, E. H.: It is suggested that an assay method for liniment of chloroform be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Roberts, J. G.: One lot of chloroform liniment examined was deficient in alcohol. Two other lots contained only 70 and 85 per cent, respectively, of the normal amount of camphor. The latter contained 27 per cent excess of chloroform.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 114.

LINIMENTUM SAPONIS.

Lewyn, I.: It is recommended that in the preparation of soap liniment camphorated oil (prepared with peanut oil) be used instead of soap and camphor, as follows: Camphorated oil, 250 grams; oil of rosemary, 700 cubic centimeters; alcohol, 700 cubic centimeters; and water, q. s., to make 1,000 cubic centimeters. Shake the mixture until thoroughly clear.—J. Am. Pharm. Assoc. 1920, v. 9, p. 311.

LINIMENTUM SAPONIS MOLLIS.

Gane, E. H.: It is suggested that an assay method for liniment of green soap be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LINIMENTUM TEREBINTHINÆ.

Gane, E. H.: It is recommended that turpentine liniment be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LINUM.

Filter, P.: A summary of the chemical properties of flaxseed and notes on the place of origin. The fat content, the water content, the weight of seed, the purity, et cetera, were observed.—Physiol. Abstr. 1920, v. 5, p. 151.

Grimme, Cl.: Various kinds of linseed as found in the trade are described and the oil content of 18 varieties is given.—Seifensieder-Ztg. 1919, v. 46, p. 816–819, through Chem. Abstr. 1920, v. 14, p. 1761.

Ballard, C. W.: Notes on the identification of linseed gum by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

LIQUORES.

Hommell, P. E.: A solution of antiseptics better than the one in the N. F. should be contained in the Pharmacopœia. The U. S. P. VIII formula yields a fine product.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Anon.: A 2 per cent solution of silver nitrate is included in the new supplement to the Ph. Fr. The subtitle of this preparation is "Preventive Solution Against Opthalmia Neonatorum."—Chem. & Drug. 1920, v. 92, p. 456.

Fourneau, E., and Donard, E.: A report of an investigation to determine the composition of a solution of iodine monochloride prepared by passing chlorine gas into 80 cubic centimeters of water in which are suspended 127 grams of finely powdered iodine.—Bull. sc. pharmacol. 1920, v. 27, p. 629–634.

Dezeine, Fritz: A continuation of an article dealing with the action of heat on colloidal solutions.—J. pharm. Belg. 1920, v. 2, p. 171–172.

LIQUOR ALUMINI ACETATIS, N. F. III.

Brenner, M.: An abstract of an address embodying the most important results of physico-chemical studies of the solution of aluminum acetate.—Pharm. Ztg. 1920, v. 65, p. 502–503.

Mayrhofer, Adolf: Microchemical methods for testing the identity and purity of solution of aluminum acetate are described.—Ztschr. allgem. osterr. Apoth.-Ver. 1920, v. 58, p. 235.

LIQUOR ALUMINI ACETICO-TARTRATIS, N. F.

Dulière, Walter: The solution of aluminum acetotartrate of the Ph. Germ. is stated to be much more concentrated than the French preparation. It has a specific gravity of 1.258 and leaves a residue of 44.8 per cent on evaporation.—J. pharm. Belg. 1920, v. 2, p. 473.

Basler Drogerie Bohny & Co.: A sample of a solution labeled aluminum acetico tartrate was found to have a density of 1.042 at

15° C. Analysis showed it to be practically free from tartrates and acetates and to consist essentially of a solution of aluminum sulphate.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 423–424.

LIQUOR ALUMINI SUBACETATIS, N. F.

Maue, G.: The examination of samples of the solution of aluminum subacetate revealed the presence of an undue amount of iron. It is also stated that the Ph. Germ. test failed to show the presence of undue quantities of sulphate.—Pharm. Ztg. 1920, v. 65, p. 47, 250–251; see also F. Rabe, ibid. p. 199–200.

LIQUOR AMMONII ACETATIS.

Marquier, Adolph F.: It is suggested that an optional formula for the preparation of solution of ammonium acetate be given in the U. S. P. X, and that permission be given for making the solution according to this formula where considerable quantities are to be used. The proposed formula is given in detail.—Proc. New Jersey Pharm. Assoc. 1920, p. 100.

Mayrhofer, Adolf: Microchemical methods for testing the identity and purity of solution of aluminum acetate are described.—Ztschr. allgem. osterr. Apoth.-Ver. 1920, v. 58, p. 235.

LIQUOR ANTISEPTICUS, N. F.

Lascoff, J. L.: Antiseptic solution becomes cloudy on standing The formula for this preparation should be improved.—J. Am Pharm. Assoc. 1920, v. 9, p. 598.

LIQUOR ANTISEPTICUS ALKALINUS, N. F.

Marquier, Adolph F.: A modified formula for the preparation of alkaline antiseptic solution is given.—Proc. New Jersey Pharm. Assoc. 1920, p. 100.

LIQUOR ARSENI ET HYDRARGYRI IODIDI.

Dohme, A. R. L.: It is suggested that the total arsenic in solution of arsenous and mercuric iodide, as well as the arsenic in the arsenous state, should be determined.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

LIQUOR CALCIS.

Kosmann, B.: The slaking of lime consists in a gradual stepwise combination with water in which $HCa(OH)_3$, $H_2Ca(OH)_4$, $H_3Ca(OH)_5$, $H_4Ca(OH)_6$, $H_5Ca(OH)_7$, $H_6Ca(OH)_8$ and $H_7Ca(OH)_9$ are formed.—Z. Elektrochem. 1920, v. 26, p. 173, through J. Soc. Chem. Ind. 1920, v. 39, p. 466a

Bailey, E. M.: Of 32 samples of lime water examined, 7 failed to comply with the U. S. P. requirements.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

Frary, Guy G.: Of 23 samples of lime water examined, 1 was not of U. S. P. quality.—Rep. South Dakota F. & D. Com. 1920, p. 52.

Holt, Thomas: Of 28 samples of lime water examined, 7 were adulterated.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Walter, L. E.: Four of 14 samples of lime water examined were rejected for not complying with the U. S. P. requirements.—Rep. Wyoming D. F. & O. Dept. 1920, v. 3, No. 2, p. 9.

LIQUOR CRESOLIS COMPOSITUS.

Gray, William: The formula for the compound solution of cresol should be simplified so that the average pharmacist will take the trouble to make this preparation. This can be accomplished by using equal parts by weight of cresol and soft soap.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1086.

Hilton, S. L.: The following simple and inexpensive process for making compound solution of cresol is suggested: Cresol, 500 grams; oleic acid, 226 grams; sodium hydroxide, 35 grams, and water, q. s. to make 1,000 cubic centimeters. Weigh the oleic acid in a tared flask or bottle and add the cresol, mix well, then add the sodium hydroxide previously dissolved in 100 cubic centimeters of water, shake thoroughly and add water to make 1,000 cubic centimeters.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Committee on U. S. P. Philadelphia Coll. Pharm.: The formula for compound solution of cresol submitted by Mr. Samuel L. Hilton (J. A. Ph. A., p. 759, 1919), directing the use of sodium hydroxide and oleic acid for the extemporaneous preparation of soap in this solution, is approved.—Am. J. Pharm. 1920, v. 92, p. 557.

The Barrett Company: It is suggested that alcohol be omitted in the preparation of compound solution of cresol, and that 60 grams of potassium hydroxide be used instead of 80 grams or 43 grams of sodium hydroxide in place of 54 grams.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Kyser, E. V.: It is proposed that the compound cresol solution of the U. S. P. be made from equal parts by weight of soft soap and cresol.—Am. Perf. 1920, v. 15, p. 76; J. Am. Pharm. Assoc. 1920, v. 9, p. 496.

Mueller, Bertha: It is recommended that cottonseed oil be substituted for linseed oil in compound solution of cresol. A description of a simplified technic for making the solution is given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Éwe, Geo. E.: It is suggested that the U. S. P. permit the substitution of cheaper materials for linseed oil in compound solution of cresol. The following have been found satisfactory substitutes: oleic acid, cottonseed oil, peanut oil, sesame oil, soya bean, and cocoanut oil.—J. Am. Pharm. Assoc. 1920, v. 9, p. 404.

Berg, Frantz F.: It is recommended that the U. S. P. give an assay process for the water content of compound solution of cresol as the insecticide act provides that this preparation must bear a statement as to the quantity of inert ingredients present.—J. Am Pharm. Assoc. 1920, v. 9, p. 774.

Dohme, A. R. L.: It is suggested that a method for determining the water in compound solution of cresol should be included in the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 312.

Schmapolla: Attention is directed to errors in the Ph. Germ. method for the evacuation of compound solution of cresol. Experiments are described showing the impossibility of isolating the cresol in water-, alcohol-, and ether-free condition by following the pharmacopœial directions. Procedures for rectifying these errors are described.—Pharm. Ztg. 1920, v. 65, p. 620.

Fincke, H.: A description of a method for the assay of compound solution of cresol and similar preparations.—Pharm. Zentralh. 1920, v. 61, p. 240.

Verda, A.: Comments on the method of the Ph. Helv. IV for the determination of cresol in the compound solution of cresol. Several procedures for simplifying the method are suggested.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 238–239.

van Os, D.: A description of a rapid method for testing the compound solution of cresol.—Pharm. Weekblad, 1920, v. 57, p. 691–693.

LIQUOR FERRI ALBUMINATI, N. F.

Lampa, Robert R.: It is recommended that the solution of iron albuminate be deleted from the N. F. because of its lack of stability and because of the fact that it is seldom prescribed.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

Lascoff, J. L.: The formula for the preparation of solution of iron albuminate should be simplified.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598.

v. Kazay, Endre: A note describes a method for the preparation of a clear, stable solution of iron albuminate.—Pharm. Monatsh., 1920, v. 1, p. 54–55; Schweiz. Apoth.-Ztg. 1920, v. 58, p. 399.

Merck, E.: Notes on the preparation of solution of iron albuminate.—Pharm. Monatsh. 1920, p. 54, through Schweiz. Apoth.-Ztg. 1920, v. 58, p. 399.

Zimmermann, W.: One sample of solution of iron albuminate examined contained only 3.12 per cent of iron. A second sample contained an excess of sodium hydroxide.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 45.

LIQUOR FERRI CHLORIDI.

Committee on U. S. P. Philadelphia Coll. Pharm.: Solution of ferric chloride is described as "reddish brown" in color. It is more nearly "yellowish brown."—Am. J. Pharm. 1920, v. 92, p. 558.

Feist, K.: Methods for the determination of oxychloride and free hydrochloric acid in ferric chloride solution are described.—Arch. Pharm. 1915, v. 253, p. 451, through Pharm. Zentralh. 1920, v. 61, p. 68.

Richard, F., and Malmy, A.: The necessity of a test for sulphates in the solution of ferric chloride is pointed out. In 6 samples examined, 4 contained sulphates. One sample contained as much as 19 per cent of ferric sulphate.—J. pharm. et chim. 1920, v. 21, p. 5–6.

LIQUOR FERRI TERSULPHATIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: The description of solution of ferric sulphate is "yellowish brown." It should be "reddish brown." The color descriptions of this solution and of solution of ferric chloride were evidently confused.—Am. J. Pharm. 1920, v. 92, p. 558.

LIQUOR FORMALDEHYDI.

Carteret, Georges: An account of the preparation of formaldehyde from methyl alcohol, carbon dioxide, and carbon monoxide and a discussion of its industrial applications.—L'age de fer, v. 36, p. 408–409, through Chem. Abstr. 1920, v. 14, p. 3226.

Thomas, Moyer D.: An investigation of the relative value of different catalysts in the preparation of formaldehyde.—J. Am. Chem. Soc. 1920, v. 42, p. 867–882.

Committee on U. S. P. Philadelphia Coll. Pharm.: Methyl alcohol is specified in solution of formaldehyde to prevent polymerization. It would be desirable to permit the use of either methyl or ethyl alcohol.—Am. J. Pharm. 1920, v. 92, p. 558.

Robinson, R. H.: The official method for the determination of formaldehyde in solution has been found to give erroneous results, probably due to the loss of formaldehyde by volatilization on heating or to the incomplete oxidation of the formaldehyde to formic acid in the time specified. A procedure for avoiding errors due to these causes is described.—Chem.-Analyst, 1920, v. 29, p. 21–22.

Pittarelli, Emilio: Some new color reactions for identifying acetic and formic aldehydes are described.—Arch. farmacol. sper. 1920, v. 30, p. 148–160.

Hanzlik, P. J.: The success of the phloroglucin test for formaldehyde depends on the purity of the phloroglucin and the degree of alkalinity. The alkalinity should be rather high—between 0.01 and 0.1 N sodium hydroxide.—J. Biol. Chem. 1920, v. 42, p. 411–413.

Merson, George F.: The substitution of ethyl alcohol for a portion of the methyl alcohol usually present in solution of formaldehyde obtained from the United States is reported.—Pharm. J. 1921, v. 106, p. 4; Chem. & Drug. 1920, v. 93, p. 1773.

van Os, D.: A dissertation dealing with the pharmacy of formaldehyde, hexamethylentetramine, and the preparations made therefrom.—Pharm. Weekblad, 1920, v. 57, p. 1407–1412.

LIQUOR HYDROGENII DIOXIDI.

Hague: For the extemporaneous preparation of hydrogen peroxide solution 170 grams of sodium perborate and 60 grams of citric acid are dissolved in 870 parts of water and filtered through asbestos or glass wool.—Boll. chim.-farm. 1920, v. 59, p. 440.

Farbenfabriken vorm. Fr. Bayer & Co.: D. R. P. No. 293125 describes the preparation of a stable solution of hydrogen peroxide and carbamide.—Chem. & Drug. 1920, v. 92, p. 55.

Jensen, H. R.: Data are presented showing the relative values of various substances as preservatives for solutions of hydrogen dioxide.—Pharm. J. 1920, v. 105, p. 87; Chem. & Drug. 1920, v. 93, p. 88–89.

Spiro, K.: A new test for hydrogen peroxide is based on the color produced when a dilute solution of ferrous sulphate is added to hydrogen peroxide solution containing a small amount of phenol. The resulting color, which is green, is changed to a reddish violet by the addition of alkali.—Ztschr. anal. Chem. 1915, v. 54, p. 345, through Pharm. Zentralh. 1920, v. 61, p. 300.

Maass, O., et al.: A report of investigations to determine the properties of pure hydrogen peroxide.—J. Am. Chem. Soc. 1920, v. 42, p. 2548–2570.

Rius y Miro, A.: A report of studies on the reaction between hydrogen dioxide and the per acids.—Anales soc. española fis. quim. 1920, v. 18, p. 35–43.

Curtis, H. A.: A report of experiments which show that hydrogen peroxide is activated by light.—J. Am. Chem. Soc. 1920, v. 42, p. 720.

von Bertalan, Joseph: A report of investigations to determine the velocity of the decomposition of hydrogen peroxide in the presence of iron ions.—Ztschr. physik. Chem. 1920, v. 95, p. 328–348.

Abel, A.: A historical review and experimental study of the kinetics of the hydrogen-peroxide-iodine reaction.—Ztschr. physik. Chem. 1920, v. 96, p. 1–179.

Morgulis, Sergius, and Levine, Victor E.: A preliminary report of observations on the decomposition of hydrogen peroxide by organic compounds and its bearing on the catalase reaction.—Science. 1920, v. 52, p. 202–204.

Ramsay, John H.: A specimen of solution of hydrogen peroxide was milky in appearance. Upon examination, calcium, but no barium, was found. The sample developed only 8.3 volumes of oxygen.—Pharm. J. 1920, v. 104, p. 8.

Holt, Thomas: Twenty samples of solution of hydrogen dioxide examined were of U. S. P. quality.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Bailey, E. M.: Of 23 samples of hydrogen dioxide examined 7 were not of U. S. P. quality.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

Oliver, T. H., and Murphy, D. V.: Considerable success following the use of intravenous injections of hydrogen peroxide in the treatment of influenzal pneumonia is reported.—Lancet. (The) London. 1920, v. 198, p. 432.

LIQUOR HYPOPHYSIS.

Fühner, H.: A review dealing with the pituitary body and its active constituents.—Therap. Monatsh. 1920, v. 34, p. 437–442.

Abel, J. J., and Macht, D. I.: Histamine, if sufficiently dilute, produces the same effect as pituitary extract on the uterus of the mouse, causing contraction, while concentrated pituitary extract acts like the stronger solutions of histamine, producing relaxation. This correspondence in effect does not necessarily mean identity in composition.—J. Pharmacol. & Exper. Therap. 1919, v. 14, p. 279.

Abel, J. J., and Nagayama, T.: Histamine is not the active principle of the pituitary, but is an important decomposition product of some unidentified constituent. The extracts used in medicine contain histamine. The posterior lobe of the pituitary contains a hormone which is probably blood-pressure raising and plain-muscle stimulating.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 347–399.

Cow, D.: Because of the fact that histamine causes relaxation of the uterus of the mouse while pituitary extract causes increased tone, it is concluded that the two substances are not identical.—J. Pharmacol. & Exper. Therap. 1919, v. 14, p. 275.

Jackson, D. E., and Mills, C. A.: An experimental investigation of the pharmacologic properties of the active principle of commercial pituitary extracts and of the comparative action of histamine.—J. Lab. & Clin. Med. 1919, v. 5, p. 1–27.

Crawford, Albert C.: An account of the isolation of a pressor compound from the pituitary gland. The identity of the compound has not been established.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 81–94.

Fenger, F., and Hull, M.: It is shown that the active principle of the pituitary, which has a contractile action upon the uterus, appears to be linked in the fresh gland to a protein complex.—J. Biol. Chem. 1920, v. 42, p. 153.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the U. S. P. method for the physiologic assay of pituitary extract.—Am. J. Pharm. 1920, v. 92, p. 648.

Pittenger, P. S.: In the report of the committee on physiologic assaying of the American Pharmaceutical Association recommendations are made for changes in the U. S. P. method for the assay of pituitary extracts.—J. Am. Pharm. Assoç. 1920, v. 9, p. 618–619.

Trendelenburg, P., and Borgmann, E.: A review of the problem of determining the strength of pituitary extracts, using the isolated uterus method.—Biochem. Ztschr. 1920, v. 106, p. 239–253.

Hercod, E.: A critical study of methods which have been proposed for the physiological standardization of pituitary solution.—Chem. & Drug. 1920, v. 93, p. 1221–1222.

Hammett, F. S., et al.: Results obtained in a study of the phsiologic response to pituitary administration are reported.—Am. J. Physiol. 1920, v. 51, p. 588–592.

Rosenow, Georg: A report of experiments to determine the effect of pituitary extract on the distribution of blood in man.—Ztschr. exper. Med. 1920, v. 11, p. 114–124.

Houssay, B. A., et al.: Experiments to determine the action of pituitary extract on diuresis in the dog and guinea pig are reported.—Physiol. Abstr. 1920, v. 5, p. 316.

Pollock, W. B. I.: A study of the action of hypophysin on the rabbit pupil. When instilled into the eye mydriasis occurred in 94 per cent of the cases.—Brit. J. Ophthalmol. 1920, v. 4, p. 106–124, through Physiol. Abstr. 1920, v. 5, p. 248.

Davidson, M.: A case is described in which hypodermic injections of pituitary extract caused an antidiuretic effect in diabetes insipidus.—Lancet (The), London, 1920, v. 199, p. 401.

LIQUOR IODI COMPOSITUS.

Gane, E. H.: It is suggested that compound solution of iodine be deleted from the Pharmacopœia.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LIQUOR MAGNESII CITRATIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: The use of talc in solution of magnesium citrate is unnecessary and undesirable. Partial sterilization of the product, as directed in the present Pharmacopœia, is unnecessary when the solution is sold within a few days.

and only adds to the time necessary for its preparation. If the solution is to be kept for any length of time, it should then be properly sterilized. This can best be accomplished by heating the completed solution in stoppered bottles in an Arnold sterilizer, or steam boiler.—Am. J. Pharm. 1920, v. 92, p. 558.

Hilton, S. L.: It is suggested that in solution of magnesium citrate, 51 grams of sugar be substituted for 60 mils of syrup. Syrup not freshly made is likely to contain spores that will cause trouble in solution. Sugar is much better, easier to handle, filters practically as fast, and gives better results.—J. Am. Pharm. Assoc. 1920, v. 9, p. 405.

Mueller, Bertha: It is recommended that the technic for the preparation of solution of magnesium citrate be changed in order to increase its stability.—J. Am. Pharm. Assoc. 1920, v. 9, p. 405–406.

Mayer, Joseph L.: An account of experiments on the modification of the present U. S. P. method for the assay of solution of magnesium citrate. An attempt is made to simplify the U. S. P. procedure without sacrificing accuracy.—J. Am. Pharm. Assoc. 1920, v. 9, p. 253–255.

Horn, Wilbur F.: A method for preparing solution of magnesium citrate is described which has the advantage of making unnecessary the use of potassium or sodium bicarbonate and of effecting a saving of 7 grams of citric acid for each bottle of solution prepared.—Drug. Circ. 1920, v. 64, p. 94.

Arny, H. V.: A considerable quantity of the solution of magnesium citrate sold at the present time contains less than the required amount of citric acid. It is therefore desirable that the next pharmacopœia provide assays for magnesium oxide and for citric acid. For the latter the assay suggested by J. L. Mayer is recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 973.

Gane, E. H.: It is suggested that an assay method for solution of magnesium citrate be included in the next U. S. P.—Am. Druggist. 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Bachman, Gustav: Of 23 samples of solution of magnesium citrate examined, 7 were below the U. S. P. strength.—Proc. Minnesota Pharm. Assoc. 1920, p. 108–109.

Bailey, E. M.: Of 12 samples of solution of magnesium citrate examined, 1 failed to comply with the U. S. P. requirements.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

Holt, Thomas: Of 10 samples of solution of magnesium citrate examined, 1 was not up to standard.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Woods, Charles D.: Of 21 samples of solution of magnesium citrate examined, only 4 were of standard strength, 16 were much above standard and adulterated, and 1 was slightly below standard.— Off. Insp. Maine Agric. Exper. Sta. 1920, No. 95, p. 8.

LIQUOR PEPSINI ANTISEPTICUS, N. F.

Lascoff, J. L.: It is recommended that antiseptic solution of pepsin be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

LIQUOR PLUMBI SUBACETATIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: Solution of lead subacetate may be made equally as satisfactory by mixing the lead oxide with the solution of lead acetate, agitating occasionally during seven days and filtering. Heating for one hour evaporates the solution continuously, necessitating the addition of more water and usually causing considerable precipitation of lead as carbonate. The cold maceration method has been used for a number of years in large laboratories and also on a small scale and the resulting product frequently tested and found to be identical with that prepared by the hot process.—Am. J. Pharm. 1920, v. 92, p. 558.

Hommell, P. E.: The solution of lead and opium and that valuable astringent and antiseptic solution, aluminum acetate, should occupy the positions of the weak and strong solutions of lead subacetate in the U. S. P.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

LIQUOR POTASSII ARSENITIS.

Dohme, A. R. L.: In the assay of Fowler's solution, the total arsenic should be estimated in addition to the arsenous arsenic.—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

Schreinemakers, F. A. H., and DeBaat, W. C.: A study of the constitution of the arsenites of lithium and potassium.—Rec. trav. chim. 1920, v. 39, p. 423–428.

Anon.: A note on dispensing Fowler's solution with tincture of chloride of iron. It is recommended that the Fowler's solution be neutralized with dilute hydrochloric acid to prevent precipitation of oxychloride of iron.—Drug. Circ. 1920, v. 64, p. 17.

Bachman, Gustav: Of 8 samples of Fowler's solution examined, only 2 came within the pharmacopœial requirements.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

LIQUOR POTASSII CITRATIS.

Gane, E. H.: It is suggested that solution of potassium citrate be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Solution of potassium citrate should be deleted from the U. S. P., as it is of no value unless recently prepared. As a matter of fact, physicians usually prescribe the salt in such form as they like.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

LIQUOR SODÆ CHLORINATÆ.

Langenham, H. A., and Irish, F. W.: A short historical note on the origin of solution of chlorinated soda and on the development of the formula for its preparation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 497.

Hommell, P. E.: Solution of chlorinated soda is but little used now except for bleaching purposes, as Dakin's solution replaces it.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Éwe, Geo. E.: Sodium hypochlorite solution can be fairly well stabilized by ensuring the presence of sufficient alkali, but this alkali must be of a non-caustic nature, so as not to cause irritation of the tissues upon which the solution is used. Lime is stated to answer this purpose. Details of the methods are given.—J. Am. Pharm. Assoc. 1920, v. 9, p. 46.

Attwater, H. L.: A simple method for the preparation of an accurate solution of sodium hypochlorite avoids the necessity of a preliminary assay of samples of chlorinated lime.—Brit. M. J. 1919, v. 1, p. 611.

Dienert and Vandenbulke: A report of a study of the action of sodium hyposulphite on hypochlorites.—Ann. chim. anal chim. appl. 1920, v. 2, p. 106.

Gane, E. H.: It is suggested that solution of chlorinated soda (Dakin's) be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 369–370.

Sells, A. J.: An account of experiences in the manufacture and standardization of Dakin's solution.—J. Am. Pharm. Assoc. 1920, v. 9, p. 881–883.

Beck, I.: Dakin's solution is prepared according to the following formula: Sodium carbonate, 14 grams; chlorinated lime, 20 grams; water, 1,000 grams; macerate, filter and add boric acid, 4 grams.—J. Pharm. Belg. 1920, v. 2, p. 310.

Anon.: A study of the Carrel-Dakin technique in the treatment of empyema based on 18 cases. Illustrated.—U. S. Naval Med. Bull. 1920, v. 14, p. 527–534.

Harper, W. W.: A test for differentiating the true Dakin solution from other alkaline hypochlorite solutions is as follows: To 20 cubic centimeters of solution add 2 grams of powdered phenolphthalein. There is no reaction with Dakin's solution, while an intense red color develops in other alkaline solutions.—Intern. J. Surgery, 1919, Dec., through New York M. J. 1920, v. 111, p. 81.

Johannessen, L.: An investigation of the keeping qualities of Dakin's solution. A sample containing 0.516 per cent NaClO was found to lose 0.011 per cent of NaClO per week when stored in an amber-colored bottle in the laboratory at 18° C. and 0.006 per cent when stored in the refrigerator at 0° C.—Arch. Pharm. og. Chem. 1920, v. 27, p. 77–84.

McCrae, J.: Comments on the strength of hypochlorus acid solution, with particular reference to eusol.—Pharm. J. 1920, v. 104, p. 273.

LIQUOR SODII CHLORIDI PHYSIOLOGICUS.

Strauss, F.: The second sub-title should read "Normal saline solution" instead of "Normal salt solution." This would prevent any possible misunderstanding as to whether a volumetric or other solution was intended.—Drug. Circ. 1920, v. 54, p. 216.

Taege, Karl.: Physiological salt solution is prepared by adding 25 grams of official hydrochloric acid (Ph. Germ.) to 1 liter of water and neutralizing with sodium hydroxide, using phenolphthalein as the indicator.—Münch. med. Wchnschr., v. 67, p. 371, through Chem. Zentralbl. 1920, v. 2, p. 770–771.

LITHII BROMIDUM.

Gane, E. H.: It is suggested that lithium bromide be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, p. 25: J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

LITHII CARBONAS.

Hommell, P. E.: Lithium carbonate and lithium citrate have proven efficient as antacids and diuretics, but the other three official salts could be omitted, as their professional use is very limited.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

Mayrhofer, Adolf: Microchemical methods for identifying and testing the purity of lithium carbonate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 19.

LOBELIA.

Lampa, Robert R.: The average ash content of lobelia found on the market is 10.85 per cent. The U. S. P. allows not over 8 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26: J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E.: One sample of lobelia examined was above the U. S. P. standard of 0.608 alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

LUPULINUM, N. F.

Kline, C. Mahlon: It is reported that lupulin usually contains about 10 per cent more ash than that allowed by the N. F.—Proc. N. W. D. A. 1920, p. 364.

Ewe, George E.: Two lots of lupulin examined yielded 53.1 and and 60.0 per cent of ether-soluble matter, respectively. The U. S. P. VIII required 60 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 114.

Roberts, J. G.: A sample of lupulin examined contained 17.93 per cent less ether-soluble matter than the standard of not less than 60 per cent and yielded 9 per cent more ash than the standard of not more than 16 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

LYCOPODIUM.

Gane, E. H.: It is suggested that lycopodium be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Lycopodium is occasionally employed in pharmacy. It is seldom used therapeutically, as the virtues ascribed to it are absent.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

MACIS, N. F.

Lampa, Robert R.: The average ash content of mace found on the market is 4.25 per cent. The N. F. allows not over 3 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

MAGMA BISMUTHI.

Dohme, A. R. L.: It is suggested that an electrolytic assay method should be used in assaying magma bismuth. By simply evaporating a definite quantity of the magma to dryness and weighing the residue, soluble salts present in the preparation are estimated also.—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

MAGMA MAGNESIÆ.

Hilton, S. L.: It is suggested that dried magnesium sulphate be used in place of magnesium carbonate in the preparation of milk of magnesia. The following formula is submitted: magnesium sulphate, dried, 270 grams; sodium hydroxide, 120 grams; distilled water to make 1,000 cubic centimeters.—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

Mueller, Bertha: A discussion of a modified formula for the preparation of magnesia magma. The magma is prepared by agitating light magnesium oxide 60 parts with sufficient lime water to make 1,000 parts.—Am. J. Pharm. 1920, v. 92, p. 162–164.

Committee on U. S. P. Philadelphia Coll. Pharm.: The suggestion of Sister Bertha Mueller (Am. J. Pharm., 1290, p. 162), that milk of magnesia be made by triturating commercial light magnesium oxide with lime water, has been found an improvement over the present official method and should be carefully tested for possible U. S. P. use. The minute quantity of calcium present is not objectionable and all washing of the magma is avoided.—Am. J. Pharm. 1920, v. 92, p. 558.

Terry, Robert W., and Davy, Edward D.: A study of the chemistry of the precipitation of magnesium hydroxide with particular reference to the preparation of milk of magnesia by the precipitation process, using magnesium sulphate and sodium hydroxide as the basic materials.—J. Am. Pharm. Assoc. 1920, v. 9, p. 148–153.

Éwe, George E.: A study of the effect of cold and freezing upon magnesia magma. The precipitation of the magnesia on freezing is stated to be due to a disturbance of the normal water content of of the magnesium hydroxide gel.—Am. Druggist, 1920, v. 68, No. 11, p. 25–26.

Hilton, S. L.: It is suggested that the standard for milk of magnesia be increased to at least 7.5 per cent magnesium hydroxide.—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

Bollinger, C. H., and Terry, R. W.: The U. S. P. method for the titration of milk of magnesia is criticized. It is recommended that the magma be boiled with an excess of oxalic acid solution and that the excess be titrated while hot, using phenolphthalein as indicator.—Midl. Drug. 1920, v. 54, p. 378.

Lyons, A. B.: Much of the milk of magnesia now offered is made by the formula which accompanies Keasbey and Mattison's "Magma Magnesiæ," yielding a product which contains about 40 grains to the fluid ounce of magnesium hydroxide, whereas the maximum allowed by the U. S. P., IX. is 7.5 per cent or about 36.4 grains to the fluid ounce. Would not the 8+ per cent (say 8.5) be preferable anyway to 7.5, as it is less liable to separate?—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

Terry, Robert W.: Of 62 samples of milk of magnesia examined only 33 were of U. S. P. strength. The lowest assayed 4.41 per cent of $Mg(OH)_2$ and the highest 8.37 per cent.—Proc. Ohio Pharm. Assoc. 1920, p. 156.

MAGNESII CARBONAS.

Éwe, Geo. E.: A large proportion of the market supply of magnesium carbonate contains calcium oxide in excess of the U. S. P. limit. It is suggested that the U. S. P. revision committee get in touch with manufacturers of this chemical and arrange for conformance with the present U. S. P. standard or lower the standard. Seven lots examined since June contained calcium oxide ranging from 0.3 per cent to 3.76 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 406.

Gloor, F.: One lot of magnesium carbonate examined assayed 2.12 per cent of calcium oxide, whereas the U. S. P. allows only 0.8 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

Roberts, J. G.: One lot of magnesium carbonate examined contained 1.94 per cent of calcium calculated as calcium oxide.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MAGNESII CITRAS EFFERVESCENS, N. F. III.

Éwe, George E.: Two samples purporting to be granular effervescent magnesium citrate examined proved to be granular effervescent salts of magnesium sulphate.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MAGNESII OXIDUM.

Éwe, George E.: A large proportion of the market supply of magnesium oxide contains calcium oxide in excess of the U. S. P. limit. It is suggested that the U. S. P. revision committee get in touch with manufacturers of this product in an effort to obtain conformance with the U. S. P. standard or lower the standard. Twenty-two samples tested contained calcium oxide ranging from 0.3 per cent to 9.97 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 407.

Gloor, F.: Two lots of calcined magnesium oxide examined contained 2.5 and 7.2 per cent, respectively, of calcium oxide. The U. S. P. allows only 2 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

Zimmermann, W.: A sample of magnesium oxide examined contained carbonate and chloride.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh., 1920, v. 61, p. 45.

MAGNESII SULPHAS.

Mayrhofer, Adolf: Michrochemical methods for the determination of the identity and purity of magnesium sulphate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 23.

Anon.: Two samples of Epsom salt purchased in England were found to contain nearly 3 grains of arsenic per pound, or 200 times the limit allowed by the Ph. Brit.—Brit. Food J. 1920, v. 22, p. 24.

MALTUM.

Rusby, H. H.: In indicating the source of malt, it would be better to say "of one or more species or varieties of *Hordeum*."—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Wilson, L. C., and Minchin, A. L.: In the determination of the diastatic power of malt by the method published by the Committee of the Institute of Brewing, it is unnecessary to extract the 25 grams of malt for three hours as prescribed. Equally high results are obtained by one hour's extraction.—J. Inst. Brewing, 1918, v. 25, p. 65–67, through Chem. Abstr. 1920, v. 14, p. 3748.

MANGANI GLYCEROPHOSPHAS SOLUBILIS, N. F.

Éwe, George E.: All of the samples of soluble manganese glycerophosphate examined were free from citric acid. Producers object to adding sodium citrate to form the soluble salt.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MANNA.

Youngken, Heber W.: The present Pharmacopœia makes no mention of the commercial varieties of manna under the description of its physical characteristics. The retail trade, accordingly, when ordering manna, has largely received the cheapest grade, e. g., "manna in sorts." It would be well to have standards for the three grades in commerce.—J. Am. Pharm. Assoc. 1920, v. 9, p. 407.

Anon.: Statistics are given on the sources of supply and on the importation of manna for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 38.

MASSA HYDRARGYRI.

Anon.: A discussion of the relative merits of the sulphide and electrolytic methods for the determination of mercury in mass of mercury. The U. S. P. method is thought to be more satisfactory than the sulphide method and to be more practical than the electrolytic. Comparative data showing the results obtained by the three methods are given.—Proc. Am. Drug Mfg. Assoc. 1920, p. 234–238.

Francis, J. M.: The experience of Parke, Davis & Co. with mercury preparations has convinced them that any attempt to estimate the mercury content is unsatisfactory unless one finally resorts to the expedient of estimating the mercury as sulphide, as in the case of the assay on page 214 (U. S. P., IX) for corrosive sublimate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 407.

MATICO, N. F.

Ewe, George E.: Two lots of matico examined contained 9.8 and 10.0 per cent, respectively, of stems, whereas 5 per cent would appear to be the maximum permissible amount.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MATRICARIA.

Anon.: Statistics are given on the sources of supply and on the importation of chamomile flowers for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 45.

Blair, H. W.: Historical and botanical notes on Scotch chamomiles.—Pharm. J. 1920, v. 104, p. 8–9.

Rolet, Antonin: A survey of the various species of chamomiles, their properties and uses. The cultivation of Roman chamomile is described.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 373–375.

Karlsson, K. A.: Notes on *Matricaria discoidea* DC. and the composition of the volatile oil distilled therefrom.—Svensk Farm. Tidskr. 1920, v. 24, p. 517–521, 533–538.

Roberts, J. G.: Each package of a nine-bale lot of matricaria examined proved to be of normal quality and identity except one, which was composed largely of a species of anthemis and was, therefore, rejected.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

Anon.: A note states that during the war chamomile exported to America was frequently adulterated with the flowers of *Santolina chamaecyparissias*.—Grosshandelsztg. 1920, v. 1, p. 97, through Pharm. Zentralh. 1920, v. 61, p. 303.

Riley, W. M.: One lot of matricaria examined consisted mostly of anthemis. Two other lots were partly anthemis and contained excessive stems.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MEL.

Faber, Harold K.: From experiments, it is concluded that there is probably no antiscorbutic vitamine present in honey.—J. Biol. Chem. 1920, v. 43, p. 113–116.

Caillas, Alin: By the usual alcohol precipitation method, 0.049 gram of the diastase invertin was found in 100 grams of honey. The fact that analyses of the same sample of honey at different times do not always agree is explained by the presence of this invertin.—Compt. rend. acad. sc. 1920, v. 170, p. 589–592.

Hudson, C. S., and Sherwood, S. F.: Notes on the occurrence of melezitose in honey. Analytical data on this type of honey are recorded, and a method for the approximate estimation of melezitose is described.—J. Am. Chem. Soc. 1920, v. 42, p. 116–125. For crystallography of melezitose, see Edgar T. Wherry, ibid., p. 125–128.

MEL ROSÆ.

Gane, E. H.: It is suggested that honey of rose be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

MENTHA VIRIDIS.

Anon.: A note on South African spearmint.—Bull. Imp. Inst. 1920, v. 18, No. 3, p. 350–351.

MENTHOL.

Anon.: According to a cabled report from Tokyo, the estimated production of menthol for 1918 was 200 tons of 2,000 pounds each, and for 1919, 80 tons. The 1918 estimate for peppermint oil was 135 tons and the 1919 estimate 54 tons.—Com. Rep. 1920, No. 22, p. 536.

Koursanof, N. J.: An account of chemical studies on menthol and some of its derivatives.—J. Soc. phys.-chim. russe, v. 46, p. 815, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 38.

von Friedrichs, O.: The optical activity of solutions of menthol in phenol, eugenol, and in a mixture of phenol and eugenol has been determined.—Arch. Pharm. 1919, v. 257, p. 72, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 30.

Arny, H. V., and Schaefer Hugo H.: A description of a method for the determination of menthol in alcoholic solution. The principal feature of the method is the use of sodium chloride for the purpose of salting out the menthol, which is then measured volumetrically in the graduated neck of a cassia flask.—Am. Druggist, 1920, v. 68, p. 20.

Griggs, William B.: A detailed account is given of the symptoms produced by the administration of various homeopathic dilutions of tincture of menthol to healthy individuals.—Hahnemann. Month. 1920, v. 55, p. 43–49.

METHYLIS SALICYLAS.

Merrell, Charles G.: In describing the medical division of the National Museum, an account is given of the distillation of birch oil in the Carolina mountains.—Am. J. Pharm. 1920, v. 92, p. 661–665.

Anon.: The U. S. P., IX, gives 1.180 as the lower limit of specific gravity for synthetic oil of wintergreen. This limit should be lowered to 1.177. For solution 6 to 8 volumes of 70 per cent alcohol are required. A test for the presence of iron, frequently found in the oil, should be provided. The refractive index of the synthetic ester is 1.535 to 1.538 at 20° C.—Semi.-Ann. Rep. 1918, Apr.-Oct., p. 56–57.

Thurston, Azor: The refractive index of a commercial sample of oil of wintergreen (natural) at 20° C. is given as 1.4741. The refractive index of a sample of methyl salicylate was found to be 1.5379.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

LaWall, Chas. H.: A review of tests for methyl salicylate in oils of gaultheria and birch. It is concluded that none of the tests which have been proposed give uniform results in attempts to distinguish between these oils.—Am. J. Pharm. 1920, v. 92, p. 891–895.

Myers, Harold B.: A report of a case of poisoning due to the ingestion of 1 ounce of methyl salicylate.—J. Am. M. Assoc. 1920 v. 75, p. 1783.

METHYLTHIONINÆ CHLORIDUM.

Loewe, S.: A description of a method for the determination of methylene blue in the organs and tissues of the cadaver.—Vierteljahrschr. f. gericht. Medizin. 1919, Oct. p. 171, through Pharm. Weekblad, 1920, v. 57, p. 200–201.

Baker, M. E.: Two lots of methylene blue examined were rejected. They yielded 8.1 and 12.8 per cent of ash, respectively. The ash consisted chiefly of ferric oxide. They were otherwise of U. S. P. quality.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

Eli Lilly & Company: One lot of methylene blue, labeled "Medicinal USP," examined was rejected, as it had an ash content of 44 per cent, which consisted of zinc and sodium chloride.—Proc. N. W. D. A., 1920, p. 359.

Foss, R. S.: Methylene blue in aqueous solution is recommended for the treatment of gonorrhea in women.—Brit. M. J. 1920, v. 1, p. 434.

MEZEREUM.

Gane, E. H.: It is suggested that mezereum be deleted from the U. S. P.—Am. Druggist. 1920, v. 68, No. 5, p. 25; J. Am. Pharm. 1920, v. 9, p. 366–370.

MISTURA CHLOROFORMI ET MORPHINÆ COMPOSITA, N. F.

Lascoff, J. L.: It is recommended that compound mixture of chloroform and morphine be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

MISTURA CRETÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: Chalk mixture can be prepared so that it is permanent and ready for instant dispensing, as follows:

Add 1 cubic centimeter of oil of cinnamon to 200 gms. of compound chalk powder. Gradually and thoroughly triturate this powder with 400 cubic centimeters of cinnamon water. Transfer the mixture to a graduated bottle and add sufficient cinnamon water to make the product measure 1,000 cubic centimeters.—Am. J. Pharm. 1920, v. 92, p. 559.

MISTURA GLYCYRRHIZÆ COMPOSITA.

Hilton, S. L.: It is suggested that the formula for compound mixture of glycyrrhiza be revised, omitting opium. This change will eliminate much trouble—registration of sales. The small amount of opium contained therein plays little if any medicinal part.—J. Am. Pharm. Assoc. 1920, v. 9, p. 407.

Wickham, Edward A.: It is suggested that the formula for compound mixture of glycyrrhiza be revised, deleting the camphorated tincture of opium contained therein and adding 5 grams of benzoic acid and 5 grams of camphor instead. This suggestion is made in view of the fact that the opium content is too small to be of any value and consequently its deletion will not impair the value of the preparation but will eliminate one exempted narcotic-bearing preparation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 407–408.

Strauss, F.: It is suggested that the powdered acacia be omitted in compound mixture of glycyrrhiza and that a small amount of ammonia water be added to make a clearer mixture than is now obtainable.—Drug. Circ. 1920, v. 54, p. 216.

Egan, Thomas A.: It is recommended that 120 cubic centimeters of glycerin be substituted for the acacia in the U. S. P. formula for the preparation of brown mixture.—Drug. Circ. 1920, v. 64, p. 406.

MISTURA OLEI PICIS, N. F.

Lascoff, J. L.: It is recommended that mixture of oil of tar be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

MISTURA OPII ET RHEI COMPOSITA, N. F.

Hommell, P. E.: It is suggested that the tincture of opium in Sun Cholera Mixture be replaced by tincture of viburnum prunifolium in order that the public may be able to obtain this preparation without a physician's prescription.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

MISTURA RHEI COMPOSITA, N. F.

Egan, Thomas A.: An improved formula for the preparation of the compound mixture of rhubarb is given.—Drug. Circ. 1920, v. 64, p. 406.

Lascoff, J. L.: Glycerin should be omitted in compound mixture of rhubarb as physicians prefer the preparation made according to the formula given in the U. S. P. VIII.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598.

MISTURA RHEI ET SODÆ.

Lascoff, J. L.: It is recommended that the formula for mixture of rhubarb and soda now in the N. F. be changed to that given in the U. S. P., VII, as physicians in prescribing this mixture desire that it be made according to the latter method.—Drug. Circ. 1920, v. 64, p. 170.

Strauss, F.: Mixture of rhubarb and soda now in the N. F. should be reintroduced into the Pharmacopœia. A modified N. F. method of making this preparation is described.—Drug. Circ. 1920, v. 54, p. 216.

MORPHINA.

Rosenthaler, L.: From an historical study, it is concluded that morphine was discovered by Derosne and Sertürner.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 409-411.

Kollo, C.: An investigation has shown that solutions of morphine when sterilized in an autoclave at 120° C. undergo decomposition with the formation of oxydimorphine and morphine oxide in the proportion of 9 : 1.—Bull. soc. chim. Romania, 1919, v. 1, p. 3-9.

Koller: A microchemical method for the identification of morphine is based on the fact that characteristic crystals are obtained with acidified Mayer's reagent.—Ztschr. allgem. österr. Apoth.-Ver. 1918, v. 56, p. 332, through Pharm. J. 1920, v. 105, p. 147.

Morgulis, Serguis, and Levine, Victor E.: A description of a simplified method for the detection of the distribution of morphine in foods and body tissues. The morphine is converted into the tartrate, the tartrate decomposed with sodium bicarbonate, and the morphine extracted with chloroform. The morphine is then estimated colorimetrically by means of selenium oxide dissolved in concentrated sulphuric acid.—J. Lab. & Clin. Med. 1920, v. 5, p. 321-326.

Heiduschka, A., and Faul, M.: A colorimetric method for the determination of very small quantities of morphine is described.—Arch. Pharm. 1917, v. 255, p. 172-191, through J. pharm. et chim. 1920, v. 22, p. 32.

Damas, L.: The determination of morphine in the presence of saccharose is described. The method is especially applicable to the determination of morphine in syrups.—Bull. sc. pharmacol. 1920, v. 27, p. 353–355.

Macht, David I.: A pharmacodynamic analysis of Straub's morphine reaction. The reaction is attributed to a peripheral effect of the piperidine portion of the molecule.—Proc. Soc. Exper. Biol. & Med. 1920, v. 17, p. 100–102.

Pellini, Emil J., and Greenfield, Arthur D.: Narcotic drug addiction. I. Experiments are reported which show that the blood of a tolerant animal does not contain any protective substance against morphine.—Arch. Int. Med. 1920, v. 26, p. 279–292.

Camino: A report of a case in which psychotherapy was employed in morphine addiction.—La Medicina Ibera, 1920, v. 11, p. 129, through Med. Rec. 1920, v. 97, p. 1084.

Brissemort, A., and Challamel, A.: The chemotherapy of morphinism. The administration by mouth of a mixture of berberine sulphate, berberis extract, and helenine is recommended.—Bull. gén. Therap. 1920, v. 171, p. 206–215.

MORPHINÆ HYDROCHLORIDUM.

Funck, Erich: The Ph. Germ. should include the following test: morphine hydrochloride should dissolve in dilute sulphuric acid without effervescence to form a clear solution. This test is for the purpose of detecting calcium carbonate with which morphine hydrochloride is frequently adulterated at the present time.—Apoth.-Ztg. 1920, v. 35, p. 61.

Dezeine, Fritz: The conversion of a part of the morphine hydrochloride into oxydimorphine, when aqueous solutions of the former are sterilized by heating in sealed ampoules, is attributed to the alkalinity of the glass.—J. pharm. Belg. 1920, v. 2, p. 558–559.

Suto, K.: One lot of morphine hydrochloride examined contained 18.3 per cent of water, whereas the U. S. P. allows only 15 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

MORPHINÆ SULPHAS.

Eli Lilly & Company: One lot of morphine sulphate examined had a decided yellow color and was not completely soluble.—Proc. N. W. D. A. 1920, p. 360.

MOSCHUS.

Gane, E. H.: It is suggested that musk be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Ellis, Walter E.: A discussion of melting point as a criterion of purity, with special reference to musk.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 396.

MUCILAGE ACACIÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the official mucilage of acacia be made extemporaneously from granulated acacia. This is the almost universal custom and if a granulated acacia of official quality is selected, the product is entirely satisfactory.—Am. J. Pharm. 1920, v. 92, p. 559.

MYRISTICA.

Anon.: A report of investigations of the seeds and fat of the Otoba nutmeg. The volatile oil obtained from the seeds can not replace the true oil of nutmeg. The fat is similar to that obtained from ordinary nutmeg.—Bull. Imp. Inst. 1920, v. 18, p. 168–171.

MYRRHA.

Lyons, A. B.: More specific directions for determining the amount of material in myrrh which is soluble in alcohol should be given. The German pharmacopœia directs that the determination be made by extracting the drug with alcohol, drying the residue at 100° C. and weighing. The weight must not exceed 65 per cent.—Drug. Circ. 1920, v. 64, p. 86.

Eli Lilly & Company: A number of samples of myrrh examined showed much less alcohol-soluble extract than that required by the U. S. P. standard of 35 per cent. One sample examined contained only 17 per cent alcohol-soluble material.—Proc. N. W. D. A. 1920, p. 360.

Ewe, George E.: The alcohol-soluble matter in 17 lots of myrrh examined ranged from 20.5 per cent to 98.3 per cent. The purchasing sample which assayed 98.3 per cent alcohol-soluble matter evidently consisted of a purified myrrh, but when the goods were received they averaged only 34.5 per cent of alcohol-soluble matter. The U. S. P. requires 35 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 115.

Roberts, J. G.: One sample of myrrh examined contained 10 per cent less alcohol-soluble matter than the U. S. P. standard of 35 per cent and yielded 3.66 per cent more ash than the standard of 8.5 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

Lampa, Robert R.: The average ash yield of myrrh gum found on the market is 12 per cent, and the average yield of soluble ash is 30 per cent. The U. S. P. allows not over 8.5 per cent ash, and not less than 35 per cent soluble ash.—Am. Druggist, 1920, v. 68, No. 5, p. 27; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

NUX VOMICA.

Anon.: It seems probable that the name, nux vomica, was originally given to the seed of *Strychnos potatorum*, which possesses emetic properties and is nonpoisonous.—Chem. & Drug. 1920, v. 93, p. 1309.

Anon.: Statistics are given on the sources of supply and on the importation of nux vomica for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 35–36.

Anon.: The quantity of nux vomica exported from India during the year 1918–19 amounted to 62,518 cwt. The fruits are collected between November and January and exported from February to the middle of May.—Chem. & Drug. 1920, v. 92, No. 10, p. 65.

Anon.: Data are given showing the quantities of nux vomica exported from the west coast of India during the years 1912 to 1919, inclusive.—Chem. & Drug., 1920, v. 93, p. 1286.

Youngken, H. W., and Slotter, C. F.: A pharmacognostical study of the commercial varieties of nux vomica. Varieties from Ceylon, Tellicherry, Madras, and Cochin, China, are described.—Am. J. Pharm. 1920, v. 92, p. 538–540.

Heiduschka, A., and Wolf, L.: The determination of alkaloids in nux vomica by Rapp's method is described.—Südd. Apoth.-Ztg. 1920, v. 60, p. 142–143; J. Soc. Chem. Ind. 1920, v. 39, p. 465A.

Éwe, George E.: Six samples of nux vomica examined were above the U. S. P. standard of 2.5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

M. R. C. V. S. and A. P. S.: Notes on the use of nux vomica in veterinary practice.—Pharm. J. 1920, v. 105, p. 172.

OLEATUM COCAINÆ, N. F.

Lascoff, J. L.: It is recommended that oleate of cocaine be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

OLEORESINA.

Committee on U. S. P. Philadelphia Coll. Pharm.: The Pharmacopœia has alternated on the solvent used for oleoresins in each of the recent revisions. In one decade it was acetone, in the next ether, for all of the oleoresins except cubeb. It is suggested that either solvent be directed, except in oleoresin of cubeb, as they seem to be identical in action. This will permit the use of the one which is readily obtainable or the one which is most economical.—Am. J. Pharm. 1920, v. 92, p. 559.

Swinton, Ralph S.: The U. S. P., IX, specifies ether as the solvent in the manufacture of oleoresins. It is suggested that this specification be omitted, leaving the solvent to be used to the discretion of the manufacturer. Ether is a very costly and unsuitable solvent. Many very much cheaper and more easily handled solvents produce equally good or even better oleoresins. The fire risk with ether is also very great.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Hommell, P. E.: Of the six oleoresins in the U. S. P., oleoresin of male fern, oleoresin of parsley fruit, and oleoresin of cubebs are occasionally prescribed with good result. The oleoresin of ginger is of value as a stimulant and carminative, but it is seldom administered, as the tincture entirely replaces it. The oleoresin of pepper is absolutely of no consequence and should be deleted from the U. S. P. The oleoresin of capsicum is an ingredient of the emplastrum, but as an internal medication it is superfluous.—Proc. New Jersey Pharm Assoc. 1920, p. 42.

OLEORESINA ASPIDII.

Berg, Frantz F.: It is recommended that the U. S. P. prescribe a standard for the oleoresin of male fern in order that a more reliable product may be obtained. Samples on the market have been found to assay from 8 to 26 per cent of crude filicin.—J. Am. Pharm. Assoc. 1920, v. 9, p. 774–775.

Burdick, Alfred A.: It is suggested that the Pharmacopœia should include an assay process for oleoresin of aspidium.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Dohme, A. R. L.: It is suggested that an essay for oleoresin of male fern be given in the U. S. P. Several reliable processes are available. Large quantities of oleoresin of male fern are marketed which do not contain 27 to 28 per cent of filicin, the amount present in a good product.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Gane, E. H.: It is suggested that an assay method for oleoresin of male fern be included in the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Linde, O.: It is recommended that there be included in the new edition of the Ph. Germ. an assay for crude filicin, also a test for the detection of aspidin, a constituent of *Aspidium spinulosum*.—Apoth.-Ztg. 1920, v. 35, p. 451.

Suto, K.: Three lots of oleoresin of aspidium examined assayed 25.2, 24.5, and 20.0 per cent, respectively, of filicin. The arbitrary standard is 20 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 109.

OLEORESINA PETROSELINI.

Anon.: According to the new supplement to the Ph. Fr., apiol has been deleted.—Chem. & Drug. 1920, v. 92, p. 456.

OLEORESINA PIPERIS.

Gane, E. H.: It is suggested that oleoresin of pepper be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

OLEA PINGUA.

Anon.: An article discussing the U. S. commerce in fatty oils for the year 1919. Curves are given showing the variations in the price of the more important oils during the period 1914 to 1919.—Drug & Chem. Markets, 1920, v. 6, No. 1, p. 13–14.

Pollitt, A. A.: A digest of the data on source, production, uses, and methods of analysis found in works on fats and oils, for the following vegetable oils: linseed, cottonseed, olive, corn, almond, poppy, sesame, candlenut, sunflower, and castor.—Chem. Age, London, 1920, v. 3, p. 366–368.

Herbig, W.: A review of the progress in the chemistry of the fats, oils and waxes for the year 1917–1918.—Seifenfabrik, 1919, v. 39, p. 540–542, 572–573, 603–605, 667; v. 40, p. 17–19, 35–36, 131–132, 148–149, 163–165, 181–182, 199–200; Chem. Zentralbl. 1920, v. 91, part 2, p. 147 and 811.

Anon.: A review of the literature and the theories propounded in connection with the thickening of fatty oils by means of air treatment and heating, and a discussion of the modifications effected by the polymerisation of oils and fats.—Chem. Age, London, 1920, v. 3, p. 620–621, 648–649.

Gonnermann: Iron, from traces up to 29.7 per cent, was found in the animal and vegetable fats examined.—Olien en Vetten, v. 5, p. 253, through Chem. Umschau, 1920, v. 27, p. 244.

Rosenthaler, L.: A contribution to microchemical methods for the identification of oils and fats.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 545–549, 562–567, 578–583.

Nicolet, Ben H.: An experimental investigation of some of the anomalies observed in the solidification point of tristearin.—J. Ind. & Eng. Chem. 1920, v. 12, p. 741–743.

Eisenstein, A.: Data are given showing the solidifying and melting points of the more common fatty acids and their glycerides.—Oel-u. Fett-Ind. Nos. 19–22, through Chem. Abstr. 1920, v. 14, p. 1050.

Sundberg, Thure: An investigation of Bömers melting point difference method for the study of fats.—Svensk Kem. Tidskr. 1920, v. 32, p. 5–13.

Utz: A note points to the significance of the refractive index as a criterion for determining the quality of oils and fats.—Ztschr. angew. Chem. 1920, v. 33, part 1, p. 264, 268–269.

Trim, F. H.: The use of the refractometer in ascertaining the purity of certain refined edible oils is discussed.—J. Soc. Chem. Ind. 1920, v. 39, p. 307–308T.

Joseph, A. F.: It is suggested that correction of refractive index for temperature in the case of fixed oils should be made by the simple method of adding or subtracting 0.00036 for every degree of temperature.—J. Soc. Chem. Ind. 1920, v. 39, p. 66T.

Normann, W.: Data relative to the viscosity of some saponifiable fats and oils are given.—Chem. Umschau, 1920, v. 27, p. 216–218.

Grimme, Cl.: The solubility of fats and oils in glacial acetic acid and the temperature at which this solution becomes turbid is made use of as an analytical characteristic. The method is described in detail.—Siefensieder-Ztg. 1919, v. 46, p. 379–381, through Chem. Abstr. 1920, v. 14, p. 1054.

Fahrion, W.: A brief review of the progress in the analytical chemistry of fats during the year 1919.—Chem. Umschau, 1920, v. 27, p. 225–228, 238–242.

Hehner, O., et al.: Report of the committee of analysts on standards for vegetable oils of good merchantable quality. This report presents in tabular form schedules of standards for vegetable oils, seeds, nuts and kernels.—Analyst (The) London, 1920, v. 45, p. 286–289.

Oertel, Hans: A method for the rapid and accurate determination of moisture in fats and oils consists in adding a mixture of 2 parts of anhydrous magnesium sulphate and 1 part of kieselguhr to 10 cubic centimeters of oil and noting the maximum rise in temperature, which is reached in about 3 minutes.—Chem.-Ztg. 1920, v. 44, p. 854.

Schwerdt, W.: A description of a modified Goldschmidt method for the exact determination of the acid, or saponification, number of the free fatty acids in fat.—Seifensieder-Ztg. v. 47, p. 290, through Chem. Zentralbl. 1920, v. 91, part IV, p. 299.

Sundberg, Thure, and Lundberg, Martin: An examination of the different methods of determining the iodine number of fats. The Hanus method was found to be the most satisfactory on account of the greater stability of the reagent employed.—Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 39, p. 87–95.

Lakhani, J. V., and Sudborough, J. J.: Studies in the determination of the iodine values of fats and oils by Winkler's bromate method are reported.—J. Indian Inst. Sci. 1916, v. 1, p. 173–179, through Chem. Abstr. 1920, v. 14, p. 3807.

Devrient, W.: A comparison of methods for estimating the iodine number of fats.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 361–366.

Aida, M.: A test for the detection of minute quantities of petroleum ether in vegetable oils depends on the formation of a sparkling interference ring, when a few drops of formaldehyde solution and sulphuric acid are added to the aqueous distillate obtained on subjecting the oil to steam distillation.—Chem.-Ztg. 1920, v. 44, p. 280; Chem. Zentralbl. 1920, v. 4, p. 395.

Dell'acqua, G.: A description of an electrical method for the differentiation of soy-bean oil from other fixed oils.—Giorn. chim. Applicata, 1920, v. 1, p. 48–53, through Chem. Abstr. 1920, v. 14, p. 2558.

Jungkunz, Rob.: Notes on the determination of cocoanut oil in soaps by means of the Polenske method.—Seifensieder-Ztg. 1920, v. 47, p. 927–929, 949–951.

Newhall, Charles A.: A modification of a color test developed by L. Settini is recommended for the direct identification of soy-bean oil.—J. Ind. & Eng. Chem. 1920, v. 12, p. 1174–1175.

Anon.: Data relative to a number of oil-yielding seeds of Surinam are presented.—Olien en Vetten, 1920, No. 31, p. 400–401, through Chem. Abstr. 1920, v. 14, p. 1229.

von Friedrichs, O.: The characters of the fixed oils of the seeds of *Pinus silvestris* and *Picea abies* are fully described.—Svensk. Farm. Tidskr. 1919, v. 23, p. 445–461, 500; J. Soc. Chem. Ind. 1920, v. 39, p. 304A.

Zellner, J.: Data relative to the physical and chemical constants of the fatty oil of ergot are given.—Chem. Umschau, 1920, v. 27, p. 176; Pharm. Zentralh. 1920, v. 52, p. 745.

Tsujimoto, Mitsumaru: A study of shark liver oils, with special reference to their content of squalene, a highly unsaturated hydrocarbon.—J. Ind. & Eng. Chem. 1920, v. 12, p. 63–73.

Stock, Erich: A report of the analysis of a sample of perilla oil.—Seifensieder-Ztg. 1920, v. 47, p. 346.

Heiduschka, A., and Felser, S.: A report of studies on the fatty acids of arachis oil. Arachidic, lignoceric, stearic, palmitic, oleic and linoleic acids were identified.—Ztschr. Unters. Nahr.-u. Genussm. 1919, v. 38, p. 241.

Low, Wilson H.: Data obtained in the examination of soy-bean oil for total fatty acids, unsaponifiable matter and glycerol are presented.—J. Ind. & Eng. Chem. 1920, v. 12, p. 572–573.

Jamieson, George S., and Baughman, Walter F.: A comparison of samples of okra-seed oil. The physical and chemical constants found for the oil are also given.—J. Am. Chem. Soc. 1920, v. 42, p. 166–170.

Evers, Norman, and Foster, H. J.: Data showing some of the physical and chemical constants of mutton bird oil are given. This oil is obtained from the stomach of the sooty petrel and is said to be useful as a substitute for cod-liver oil.—Pharm. J. 1920, v. 105, p. 100; Chem. & Drug. 1920, v. 93, p. 1066.

Corfield, C. E., and Caird, E.: A chemical study of the fat of momordica seeds. Analytical data obtained in the examination of fat are presented.—Pharm. J. 1920, v. 104, p. 43–44.

Chatterji, K. K., and Sen, R. N.: Margosa oil contains 28 per cent of stearic acid, 36 per cent of oleic acid, and 24 per cent of margosic acid.—Indian J. Med. Research, 1920, v. 8, p. 356–362.

Boulay, A.: Notes on the properties and composition of the oil of *Gilletiella congolana.* Data relative to the physical and chemical contents of the oil are given.—Bull. sc. pharmacol. 1920, v. 27, p. 626–628.

Bertolo, P.: Notes on the analytical constants and characteristics of lemon-seed oil.—Ann. chim. anal. chim. Appl. 1920, v. 1, p. 54–55; Ber. gesamt. Physiol. 1920, v. 3, p. 149.

Baughman, Walter F., and Jamieson, George S.: Data relative to the comparison and properties of Hubbard squash seed oil are given.—J. Am. Chem. Soc. 1920, v. 42, p. 152–157.

Amberger, Conrad: The presence of oleodierucin in rapeseed oil is confirmed by the isolation of stearodibehenin from the hardened oil. Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 40, p. 192–201.

Fairhall, Lawrence T., and Bates, Paul M.: A report of experiments in which it was shown that certain oils, such as olive, cottonseed, and almond oils, can be effectively sterilized by means of relatively short exposure to ultra violet rays.—J. Bact. 1920, v. 5, p. 49–66.

Anon.: A review of a volume by Geoffrey Martin entitled *Animal and Vegetable Oils, Fats, and Waxes* states that the book is unsatisfactory and altogether too superficial.—Chem. Age, London, 1920, v. 3, p. 122.

Richardson, W. D.: A review of a volume by Percival J. Fryer and Frank E. Weston entitled *Technical Handbook of Oils, Fats, and Waxes, v. II, Practical and Analytical.*—J. Ind. & Eng. Chem. 1920, v. 12, p. 516.

V. D. W.: A book review of a volume by Ainsworth Mitchell entitled *Edible Oils and Fats.*—Pharm. J. 1920, v. 57, p. 229–230.

van Loon, C.: A review of the revised ninth edition of a work by A. H. Gill entitled *A Short Handbook of Oil Analysis.*—Chem. Weekblad, 1920, v. 17, p. 238.

OIL, CHAULMOOGRA (NONOFFICIAL).

Dean, Arthur L., and Wrenshall, Richard: A study of the fractionation of chaulmoogra oil for the purpose of separating the chaulmoogric and hydnocarpic acids.—J. Am. Chem. Soc. 1920. v. 42. p. 2626–2645.

Walker, Ernest L., and Sweeney, Marion A.: The chemotherapeutics of the chaulmoogric acid series and other fatty acids in leprosy and tuberculosis. I. Bactericidal action, active principle, specificity.—J. Infec. Dis. 1920. v. 26, p. 238–264.

Editorial: A note on the chemotherapy of chaulmoogra oil.—J. Am. M. Assoc. 1920, v. 74, p. 1578–1579.

Henry, T. A.: A review of the use of chaulmoogra oil in the treatment of leprosy.—J. Trop. Med. & Hyg. 1920. v. 23. p. 249–250.

McDonald. J. T., and Dean, A. L.: A report on the treatment of leprosy, with special reference to the employment of the ethyl esters of the fatty acids of chaulmoogra oil.—Public Health Rep. 1920. v. 35, p. 1959–1974.

OLEUM GOSSYPII SEMINIS.

Jamieson, Geo. S., and Baughman, Walter F.: A study of the composition of cottonseed oil. The glycerides of myristic, palmitic, stearic, arachidic, oleic, and linolic were identified.—J. Am. Chem. Soc. 1920, v. 42, p. 1197–1204.

Smith, W. B.: An investigation of the Kreis test for rancidity of cottonseed oil. The test is stated not to be entirely dependable in the case of cottonseed oil because the refined oil sometimes contains chromogenetic substances which give a positive Kreis reaction in nonrancid oil. J. Ind. & Eng. Chem. 1920, v. 12, p. 764–766.

Daniels, A. L., and Laughlin, R.: From experiments, it is concluded that cottonseed oil may serve as a source of fat-soluble growth-promoting vitamine.—J. Biol. Chem. 1920, v. 42. p. 359–362.

OLEUM LINI.

Steele, Lawrence L., and Washburn, Frederick M.: An investigation of various published methods for the determination of the hexabromide yield of linseed oils, especially the Eibner method. A description of a new method is given.—J. Ind. & Eng. Chem. 1920, v. 12, p. 52–59.

Anon.: A description of the hexabromide test for the purity of linseed oil as modified by Bailey. The results are lower and less concordant than those given by Steele and Washburn's method.—Amer. Soc. Testing Materials Circ. No. 99: Educat. Bureau, Paint Manufacturers' Assoc., U. S. A., July, 1920, through J. Soc. Chem. Ind. 1920, v. 39, p. 604A.

Wolff, H.: A comparison of the Eibner-Muggenthaler, Steele-Washburn, and the author's methods for the determination of the hexabromide number of linseed oil.—Chem. Umschau. 1920, v. 27, p. 176.

OLEUM MORRHUÆ.

de Kadt, Ph. J.: The Ph. Ndl. IV requires that cod-liver oil shall give with sulphuric acid a violet color which turns to brown. It is recommended that this test be dropped, since genuine oils sometimes fail to respond and other oils give confusingly similar colors.—Pharm. Weekblad, 1920, v. 57, p. 756-758.

Engelhardt, H.: One shipment of cod-liver oil exhibited a very rancid taste and showed the presence of a considerable amount of fish oils.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

OLEUM OLIVÆ.

Gordon, H. B.: An investigation of the effect of light and air on some of the properties of cottonseed oil. The changes in weight, bromine, and iodine absorption numbers, acidity, refractive index, and color of 12 samples of cured and refined cottonseed oils after exposure to sunlight for 11 to 218 days are tabulated.—Cotton Oil Press, 1919, v. 3, No. 4, p. 42–43, through Chem. Abstr. 1920, v. 14, p. 647: see also I. G. Priest, ibid., v. 3, No. 5, p. 37.

Rector, T. M.: A fat-hydrolyzing enzyme was found in olive oil. It retains its activity for years, but is destroyed by heating the oil to 150° C.—J. Ind. & Eng. Chem. 1920, v. 12, p. 156-158.

Anon.: Methods for the examination of olive oil are described and discussed. In addition to the physical constants of the oil, tests for the presence of peanut oil, colza oil, cottonseed oil, and sesame oil are considered.—Giorn. farm. chim. 1920, v. 69, p. 226-229.

Fernandez, O., and Bustamante, F.: An analytical study of Spanish olive oil. The results are compared with the constants for California and Italian olive oil.—Revista de la Real Acad. de Ciencias exactas y fisicas y naturales de Madrid, 1919, v. 17, No. 7-9, p. 281-286, through Intern. Rev. Sc. and Pract. Agric. 1920, v. 11, p. 259-260.

Cofman-Nicoreste, J.: Attention is called to the adulteration of olive oil with tea-seed oil. The physico-chemical characters of the two oils are so near alike that this adulterant can not be detected by the usual tests. A procedure for the detection of the tea-seed oil is described.—Pharm. J. 1920, v. 104, p. 139–140.

Milliau, Ernest: Three processes are described which can be used for the detection of oil of tea seed in olive oil.—Compt. rend. agr. France, 1920, v. 6, p. 578-581, through Chem. Abstr. 1920, v. 14, p. 2724.

OLEUM RICINI.

Anon.: An account of the castor-oil industry in India.—Drug & Chem. Markets, 1920, v. 6, No. 1, p. 25.

Keulemans, N.: A method for the preparation of dericinated castor oil is described.—Pharm. Weekblad, 1920, v. 57, p. 758–759.

Stosius K., and Wiesler, K.: A report of an investigation to determine the position of the double bond in ricinoleic acid.—Biochem. Ztschr. 1920, v. 111, p. 1–8.

Stosius, K., and Wiesler, K.: Researches dealing with the location of the double bond in ricinoleic acid are reported.—Biochem. Ztschr. 1920, v. 111, p. 1–7.

OLEA VOLATILA.

Anon.: A table is given which shows in a general way the dates at which the different volatile oils are distilled and become available for shipment or delivery.—Perf. & Ess. Oil Rec. Year-Book, 1920, p. VI.

Anon.: The production of Bulgarian rose oil, oil of sassafras, lemon oil, orange oil, oil of bergamot, and oil of turpentine in the lands of their origin is described.—Deutsch. Parfümerieztg. 1919, v. 5, p. 219–221.

Durrans, Thomas H.: A treatise on distillation, with special reference to the distillation of volatile oils.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 154–198.

Anon.: An article discussing the prices of essential oils during 1919.—Drug & Chem. Markets, 1920, v. 6, No. 1, p. 11–12.

Durrans, T. H.: An explanation of the residual affinity odor theory.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 391–393.

Durrans, Thos. H.: A list of odoriferous substances is given.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 45–47, 79–91, 113, 155, 258–259, 310–311, 371.

Radcliffe, L. G.: A continuation of a compilation of short descriptions of some alcohols and esters used in perfumery.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 365–367.

Hackh, Ingo W. D.: A compilation of some of the constituents of volatile oils showing their structural relations.—J. Am. Pharm. Assoc. 1920, v. 9, p. 948–958.

Roure-Bertrand Fils: Data relative to the chemistry of many of the volatile oils are presented.—Sc. & Ind. Bull. 1914–1919, No. 10.

Mayer, P.: An historical review of the use of volatile oils in micro technique, with detailed notes on the properties and uses of 19 individual oils.—Ztschr. Wiss. Mikros. 1920, v. 36, No. 3, p. 219–256.

Zollinger, L. J.: A short article dealing with the care and aging of perfumes and toilet waters.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 370–371.

Sparhawk, Charles V.: Essential oils in the making. Illustrated.—Simmons' Spice Mill, 1920, v. 43, p. 1828–1830, 1834.

Holtz, H. C.: An account of the citrus-oil industry of Sicily, with special reference to the production of oil of Bergamot.—Chem. Weekblad, 1920, v. 17, p. 674–678.

Niviere, J.: An investigation of methods for the extraction of jasmin oil. The oil obtained from hydrolyzed flowers is found to be smoother than that obtained from material not treated in this manner.—Bull. soc. chim., France, 1920, v. 27, p. 862–865.

Robson, W.: A report of experiments in the cultivation of *Monarda punctata.* The average thymol content of the oil was found to be 44 per cent.—Bot. Abstr. 1920, v. 5, p. 114.

Robson, W.: An account of experiments in the culture and distillation of ajowan. The yield of oil was found to average about 3 per cent and the thymol content of the oil about 40 to 45 per cent.—Bot. Abstr. 1920, v. 5, p. 111.

Reclaire, A., and Rochussen, F.: A review of the advances in the chemistry of terpenes and essential oils for the year 1916 to 1919. Numerous references are given.—Chem.-Ztg. 1920, v. 44, p. 853–854, 865–867, 869–871, 875–876, 882–884, 894–896, 935–936.

Anon.: Tables are given showing the physical constants for normal essential oils and some of their constituents.—Perf. & Ess. Oil Rec. Year-Book, p. II–VI.

Anon.: A table is given showing the physical constants and characteristic derivatives of the principal constituents of essential oils.—Sc. & Ind. Bull. 1920, No. 2, p. 37–48.

Thurston, Azor: Data are given showing the refractive index and optical rotation of commercial samples of a number of volatile oils.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38–39.

Utz: It is concluded from experiments that the refractive power is a valuable means of determining the purity of essential oils but that final conclusions should not be based on this property alone.—Deutsch. Parfümerieztg. 1920, v. 6, p. 25–29.

Anon.: The index of refraction is not considered of any great value as a criterion for determining the quality of volatile oils. It is suggested, however, that this constant should be given in the case of definite chemical compounds such as benzaldehyde.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 54.

Hofman, J. J.: Data relative to the determination of the separation temperature of essential oils and alcohol as a criterion of purity are presented and discussed.—Pharm. Weekblad, 1920, v. 57, p. 651–655.

Wood, Horatio C., Jr.: Data are given showing the solubility of certain volatile oils in mixtures of alcohol and water.—J. Am. Pharm. Assoc. 1920, v. 9, p. 878–881.

Baudry, R.: Microchemical methods for the study of certain constituents of volatile oils are described.—Bull. sc. pharmacol. 1920, v. 27, p. 210.

Utz: The important color reactions of essential oils as stated in the literature are described.—Deutsch. Parfümerieztg. v. 6, p. 208–211, through Chem. Zentralbl. 1920, v. 91, part IV, p. 750.

Kleber, C., and von Rechenberg, W.: A method for the estimation of cineol in volatile oils is based on the solidification point of the sample, pure cineol solidifying at +2°. A table is given showing the solidifying points of various concentrations of cineol.—J. prakt. Chem. 1920, v. 101, p. 171–177.

Fernández, Obdulio, and Luengo, N.: A report of studies on the quantitative determination of terpenes by the acetylation method.—Anales soc. española fis. quim. 1920, v. 18, p. 158–165.

Howorth, John W.: A method for the determination of oil of turpentine in oil of Siberian fir is based on the difference in the pinene content.—Pharm. J. 1920, v. 104, p. 345–346.

Kariyone, Tatsuo, and Atsumi, Kenjiro: A method for the quantitative estimation of thymol in mosla oil is described.—J. Pharm. Soc. Japan, 1920, No. 462, p. 707–713.

Anon.: Analytical data pertaining to the following oils are given: oil of citronella and lemon grass oil from Seychelles; palmarosa, ginger grass, and vetiver oils from India.—Bull. Imp. Inst. 1920, v. 18, No. 3, p. 338–346.

Massera: Information relative to the physical and chemical properties of oil of chamomile are given.—Revista ital. d. essenze e profumi Milan, 1920, No. 11, p. 124, through Bull. sc. pharmacol. 1921, v. 28, p. 286.

Smith, H. G.: An account is given of the chemical and physical constants of elemicin extracted from the oil of boronia, of which it constitutes 75 per cent.—Proc. Roy. Soc. Victoria, 1919, v. 32, p. 14–19, through Physiol. Abstr. 1920, v. 5, p. 257.

Murayama, Y.: The physical and chemical constants of a volatile oil obtained from *Mosla punctata* are given.—J. Pharm. Japan, 1919, No. 1, through J. pharm. et chim. 1920, v. 21, p. 322.

Anon.: The characteristics of the essential oil of *Andropogon gryllus* are given. The herb and root of this plant yield from 0.3 to 0.1 per cent of oil.—Schimmel's Rep., through Perf. & Ess. Oil Rec. 1920, v. 11, p. 105.

Bennett, C. T.: The physical and chemical constants of the oil of *Artemisia glutinosa* are reported.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 286.

Furukawa, S., and Tomizawa, Z.: Analytical data obtained in the examination of the volatile oil of *Perylla nankinensis* Dene are presented.—J. Chem. Ind. Tokyo, 1920, v. 23, p. 342, through J. Chem. Soc. 1920, v. 118, p. 750.

Anon.: Brief descriptions are given of a large number of Japanese essential oils.—La Perfumerie Moderne, v. 13, p. 132–134, through Chem. Zentralbl. 1920, v. 91, part 3, p. 597–598.

Wakeman, Nellie: A study of Wisconsin oil of *Monarda punctata*, in which the findings of an earlier work are confirmed in every detail. Carvacrol, hitherto not known in this oil, was identified by the melting point of its phenylurethane.—Science, 1920, v. 51, p. 397.

Asahina, Yasuhike, and Takagi, Seisi: Report on the essential oil of *Artemisia annua* L. II. The constitution of artemisia ketone.—J. Pharm. Soc. Japan, 1920, No. 464, p. 837–864.

Murayama, Y.: A report of researches on the essential oil of *Mosla grosseserrata* Maxim distilled from wild and cultivated plants.—J. Pharm. Soc. Japan, 1920, No. 459, p. 389.

Anon.: Data relative to the composition and properties of the oils obtained from xanthorrhoea resins are presented.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 143–144.

Nelson, E. K.: Anethole was identified in an oil distilled from *Rubiera Multifidi*, a plant growing in the State of California.—J. Am. Chem. Soc. 1920, v. 42, p. 1286.

Puxeddu, E., and Vodret, F.: A report of studies on the composition of the volatile oil extracted from the berries of *Juniperus phoenicea L.* of Sardinia.—Gaz. chim. ital. 1920, v. 50, part 2, p. 245–257.

Simmons, W. H.: A report of a chemical examination of artificial musk and other solid artificial perfumes.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 368–369.

Anon.: A note calling attention to volume two of a work by Ernest J. Parry entitled *The Chemistry of Essential Oils and Artificial Perfumes*.—Chem. Abstr. 1920, v. 14, p. 799.

Anon.: The phenol coefficients of a number of volatile oils as determined by W. H. Martindale are presented in the form of a table.—Perf. & Ess. Oil Rec. Year-Book, 1920, p. VIII.

Plant, O. H.: A study of the effect of carminative oils on the muscular movement of the intestines.—J. Pharmacol. & Exper. Therap. 1920, v. 16, p. 311–325.

Cains, J. F., and Mhaskar, K. S.: A study of the relation between the chemical composition of the oils of wormseed and tansy, and their therapeutic values in the treatment of hookworm.—Indian J. Med. Research, 1920, v. 7, No. 3, p. 602–605, 606–609.

Takasugi: It is concluded that lemon-grass oil has an especially beneficial effect on skin diseases caused by animal parasites and is more toxic for insects than any other volatile vegetable oil. An abstract.—Brit. Med. J. 1920, v. 2, No. 3108, Epitome, p. 5.

OLEUM AMYGDALÆ AMARÆ.

Rusby, H. H.: The plant yielding oil of bitter almond should be referred to the family *Drupaceæ*.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Anon.: An upper limit of 1.063 for the specific gravity of the oil of bitter almond at 25° would be more appropriate than 1.060 as given in the U. S. P., IX.—Semi-Ann. Rep. 1918, Apr.—Oct., p. 54.

Éwe, Geo. E.: Oil of bitter almond free from HCN is used extensively in flavoring pharmaceutical preparations. A U. S. P. standard for freedom from or limit of HCN should be adopted in order to exclude oils containing dangerous proportions of HCN. The quantitative test for HCN in U. S. P. oil of bitter almond when applied to "Oil bitter almonds free from HCN" sometimes indicates an apparent HCN content of as much as 0.1 per cent. This may be due to the error inherent in the volumetric process. Manufacturers of this oil should be requested to submit a practical monograph.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

OLEUM ANISI.

Eli Lilly & Co.: Samples of anise oil submitted direct from China are dark in color and contain considerable lead.—Proc. N. W. D. A. 1920, p. 360.

Thurston, Azor: The refractive index of a commercial sample of oil of anise at 20° C. is given as 1.4684. The optical rotation in a 100 mm. tube at 25° C. should be +1° to −2°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Anon.: A report of favorable results obtained through the use of anise oil in the treatment of itch.—Schimmel's Rep., through Am. Druggist, 1920, v. 68, No. 4, p. 14.

OLEUM AURANTII.

Rusby, H. H.: The definition for oil of orange is a sort of botanical curiosity, saying as it does "from *Citrus Aurantium Sinensis* and its varieties." *Citrus Aurantium Sinensis* can not possess varieties since it is itself a variety. If this specification is desired at all, the form should be "*Citrus Aurantium* and its varieties." It would be better, however, to omit all reference to varieties since the name of the species is understood as including them unless there is a specific exclusion.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Committee on U. S. P. Philadelphia Coll. Pharm.: The addition of 5 per cent of a fixed oil, preferably olive oil, to oil of orange, has been found to preserve it indefinitely from the development of turpentine odor. There would be no serious objection to the Pharmacopoeia recognizing this method of preservation, as it would mean the use of oils of satisfactory quality in elixirs and elsewhere, instead of the frequent employement of oils having a turpentine like odor. The added olive oil would separate from most of the mixtures and could be filtered out. The percentage which is used could easily be checked by an evaporation test. Samples preserved in this way under the most trying conditions have kept for more than ten years. The same oil unpreserved became turpentine like in a short time.—Am. J. Pharm. 1920, v. 92, p. 560.

Anon: It would be more correct if the U. S. P. required that the first 10 per cent of the distillate of oil of orange should show a rotation equal to, or but slightly lower than, that of the original oil.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 57.

OLEUM BERGAMOTTÆ, N. Y.

Thurston, Azor: The refractive index of a commercial sample of oil of bergamot at 20° C. is given as 1.4710. The optical rotation in a 100 mm. tube at 25° C. should be + 15.3°—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM BUTULÆ EMPYREUMATICUM RECTIFICATUM N. F.

Ewe, George E.: One lot of rectified oil of birch tar examined was not completely soluble in three parts of alcohol as required by the N. F. It was otherwise up to the standard.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

OLEUM CADINUM.

Anon.: The supplement to the Ph. Fr. states the specific gravity of oil of cade is slightly lower than that of water, and on shaking with water it forms globules which rise but slowly to the surface. The Ph. Brit. test for the presence of pine tar is given.—Chem. & Drug. 1920, v. 92, p. 456.

Massy: Data obtained in the examination of vegetable tar oils, including oil of cade, for sale in the markets of Morocco are presented.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 665–669.

Thurston, Azor: The refractive index of a commercial sample of oil of cade examined is given as 1.5037 at 20° C.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM CAJUPUTI.

Anon.: The U. S. P. requirements for the color of the oil of cajuput and the test given for heavy metals show that only the rectified oil is recognized, since the crude oil is green to bluish-green owing to the presence of copper.—Semi-Ann. Rep. 1918, Apr.-Oct., p. 54.

Thurston, Azor: The refractive index of a commercial sample of oil of cajuput examined is given as 1.4711 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should not exceed —4°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Cains, J. F., and Mhaskar, K. S.: From experiments, it is concluded that the oil of cajuput can not be recommended as anthelmintic.—Indian J. Med. Research, 1920, v. 7, p. 722–726.

OLEUM CARI.

Irk, Karl: A note on Hungarian caraway oil.—Herba, v. 1, No. 2, through Heil- und Gewürzpflanzen, 1920, v. 3, No. 10, p. 247.

Anon: Oil of caraway is soluble in 2 to 10 volumes of 80 per cent alcohol. The U. S. P., IX, states that it is soluble in 8 volumes of 80 per cent alcohol.—Semi-Ann. Rep. 1918, Apr.-Oct., p. 55.

Thurston, Azor: The refractive index of a commercial sample of oil of caraway examined is given as 1.4884 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +70° to +80°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM CAROPHYLLI.

Rusby, H. H.: In the definition for oil of clove there has been printed both the name and the synonym, which is tautological. Either name would suffice, so long as its authority is correctly given, although the correct one should, of course, be selected. There is also a question as to whether the peduncles of the flowers should not be included in the source of the oil, since they seem to be largely used in the distillation. Of course, they are properly excluded from the definition of cloves, because the percentage of oil present in them is very small.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Anon.: The U. S. P., IX, gives —1° 10′ for the optical rotation of oil of cloves. In our own distillates, we have observed rotations up to —1° 35′.—Semi-Ann. Rep. 1918, Apr.-Oct., p. 55.

Thurston, Azor: The refractive index of a commercial sample of oil of cloves examined is given as 1.5351 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should not exceed —1° 10′.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Anon.: Notes on the use of oil of cloves in the manufacture of perfumery and soaps.—Seifensieder-Ztg. 1920, v. 47, p. 661–662.

OLEUM CASSIÆ.

Rusby, H. H.: The definition for oil of cinnamon says "from *Cinnamomum Cassia*," whereas it should say from the bark of that species.—Am. Druggist. 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Thurston, Azor: The refractive index of a commercial sample of oil of cassia examined is given as 1.6073 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +1° to −1°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Schenk and Burmeister: A description of a method of testing for cinnamic acid.—Pharm. Ztg. 1915, v. 60, p. 213, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 27.

Lautenschläger, L.: A volumetric method for the determination of cinnamic aldehyde in oil of cinnamon is described. The method consists in adding an excess of hydrazine sulphate solution, followed by an excess of standard iodine solution and finally titrating the excess of iodine with standard thiosulphate solution.—Arch. Pharm. 1918, v. 256, p. 87, through Pharm. Zentralh. 1920, v. 61, p. 130.

Lubatti, O. F.: A colorimetric method for the determination of lead in oil of cassia is based on the behavior of the metal toward a solution of ammonium sulphide.—J. Soc. Chem. Ind. 1920, v. 39, p. 35T–36T.

Eli Lilly & Co.: Samples of cassia oil received from China were very dark and thick, did not have the normal odor and taste, and contained considerable lead. Some samples were found to be adulterated with rosin.—Proc. N. W. D. A. 1920, p. 360.

OLEUM CHENOPODII.

Rusby, H. H.: The plant yielding oil of chenopodium should be described as a species, *Chenopodium anthelminticum*, and not as a variety of *C. ambrosioides*. It is a question whether the source of the oil should be restricted to this species as it is thought that both species are used indiscriminately.—Am. Druggist. 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Wirth, Elmer H.: A study of *Chenopodium ambrosioides* var. *anthelminticum* and its volatile oil.—J. Am. Pharm. Assoc. 1920, p. 127–141.

Nelson, E. K.: Experimental data on the composition of chenopodium oils from different sources are given. The seven authentic samples collected in 1919 complied with the requirements of the U. S. P. and contained from 60 to 77 per cent of ascaridole.—J. Am. Chem. Soc. 1920, v. 42, p. 1204–1208.

Anon.: The figures given for density in the U. S. P., IX, do not exclude inferior oils. The limits, 0.958 to 0.985, would have been more correct. For solution, 3 to 10 volumes of 70 per cent alcohol are required.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 55.

Pittenger, Paul S.: The result of experiments have demonstrated that the first three-quarters of the oil obtained upon distillation is much less irritating than the whole oil of chenopodium.—Mulford Vet. Bull. 1920, v. 9, p. 60–61.

Cains, J. F., and Mhaskar, K. S.: A study of the relation between the chemical composition of oil of chenopodium and its therapeutic value in the treatment of hookworm. The literature is reviewed and a bibliography is appended.—Indian J. Med. Research, 1920, v. 7, No. 3, p. 570–601.

Hall, Maurice C.: The results of tests with oil of chenopodium in hookworm disease in dogs show that it has an efficacy of about 20 per cent. If given with chloroform, the efficacy is increased to 69 per cent.—J. Agric. Research, 1921, v. 21, p. 169–170.

Wrench, G. R.: A report of experiments to determine the value of the drugs used in the treatment of ankylostomiasis. The use of chenopodium oil is stated to be dangerous.—Indian J. Med. Research, 1920, v. 6, p. 393.

Prenschoff, Aloysius: A review of reported cases of poisoning following the ingestion of oil of American wormseed includes analytical data relative to the composition of artificial and adulterated oils.—Ztschr. exper. Path. u. Therap. 1920, v. 21, p. 425–443.

Brüning, H.: Not less than 25 cases of poisoning by the oil of *Chenopodium anthelminticum* (anseriene vermifuge) have been reported to date. In 50 per cent of these cases death resulted. Poisoning in some cases is attributed by the author to the adulteration of the oil, some samples of American anseriene vermifuge consisting of a mixture of eucalyptus oil, anise oil, and amyl acetate.—Med. Klinik., through Pharm. Weekblad, 1920, v. 57, p. 336.

OLEUM CUBEBÆ.

Rusby, H. H.: It has been quite generally claimed that the oil of cubeb distilled from the ripe fruit is equally as good as that from the unripe fruit. In the case of the fruit itself we do well to require the unripe article, since the ripe one contains much less oil. Whether the oil obtained from the ripe fruit is equal in quality to that obtained from the unripe fruit appears to be open to question.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Anon.: The oil of cubeb is sometimes bluish-green in color. An upper limit of —43° for optical rotation would be more correct than —40° as given in the present U. S. P.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 55.

Thurston, Azor: The refractive index of a commercial sample of oil of cubeb examined is given as 1.4986 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be −20° to −40°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM ERIGERONTIS, U. S. P. VIII.

Thurston, Azor: The refractive index of a commercial sample of oil of erigeron examined is given as 1.4903 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +45° to +55.3°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM EUCALYPTI.

Anon.: A review of the conditions in the eucalyptus oil industry for the year 1917.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 25-28.

Anon.: Oil of eucalyptus often has a pale greenish color, which is not stated in the U. S. P. IX.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 56.

Thurston, Azor: The refractive index of a commercial sample of oil of eucalyptus examined is given as 1.4624 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be −10° to −10°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Burnside, H. M.: A discussion of the commercial side of the eucalyptol determination in oil of eucalyptus, with special reference to the methods used in practice and that given in the Ph. Brit.–Perf. & Ess. Oil Rec. 1920, v. 11, p. 394–395.

Cocking, T. T.: A new method for the estimation of cineol in eucalyptus oils involves the formation of "cresineol," a compound of cineol with o-cresol.—Pharm. J. 1920, v. 105, p. 81-83; Chem. & Drug. 1920, v. 93, p. 85.

Bennett, C. T., and Salamon, M. S.: The cresol method for the determination of eucalyptol recently suggested by Cocking was found to possess no advantage over the method now official in the Ph. Brit. It was found that the constituents in eucalyptus oil, other than eucalyptol, have a marked influence on the melting point of the cresol compounds.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 302.

Cocking, T. T.: A reply to criticisms of the author's cresineol method for the determination of cineol in eucalyptus oils.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 362–364.

Kleber and von Rechenberg: A method for the determination of cineol in eucalyptus oils is based on the determination of the solidifying point of the oil in a jacketed vessel immersed in a mixture of ice and salt. The reference curves are obtained by observation of the solidifying temperatures of mixtures of known amounts of cineol and rectified oil of turpentine. The method is accurate to 1 per cent.—J. prakt. Chem. 1920, v. 101, p. 171–176.

Spinner, J. R.: A study of the toxicology of eucalyptus and other essential oils, with special reference to the abortive effect.—Deutsch. med. Wchnschr. 1920, v. 46, p. 389–391.

Caius, J. F., and Mhaskar, K. S.: The correlation between the chemical composition of anthelmintics and their therapeutic values in connection with the hookworm inquiry in the Madras Presidency. VII. Oleum eucalypti. Eucalyptol ranks low as an anthelmintic and cannot be recommended for use in the eradication of hookworm infection.—Indian J. Med. Research, 1920, v. 8, p. 372–378.

OLEUM GAULTHERIÆ.

Singh, Puran: Data are given showing the constants of wintergreen oil distilled at Assan, British India, from *Gaultheria fragrantissima* Wall.—Indian Forest Records, 1917, v. 5, No. 8, through Semi-Ann. Rep. 1918, Apr.–Oct., p. 51–52.

OLEUM JUNIPERI.

Puxeddu, E., and Vodret, F.: Data obtained in the determination of the physical and chemical constants of the oil of the berries of *Juniperus phoenicea* are presented.—Gaz. chim. ital. 1920, v. 50, part 2, p. 245–247.

OLEUM LAVANDULÆ.

Anon: An official inquiry into the distribution and cultivation of French lavender and the distillation of its oil.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 251–254.

Anon: The U. S. P., IX, gives −1° as a lower limit for rotation. This might be well changed to −3°.—Semi-Ann. Rep. 1918, Apr.–Oct., p. 56.

Thurston, Azor: The refractive index of a commercial sample of oil of lavender examined is given as 1.4731 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be −1° to −10°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM LIMONIS.

Leone, P.: An investigation of the effect of water on oil of lemon extracted by a new process which involves the use of running water. It is concluded that the use of water in large amounts, as occurs in this process, causes a decrease in the citral content and consequently a lower specific gravity and a higher optical rotation.—Giorn. chim. ind. appl. 1920, v. 2, p. 617–619.

Anon.: The U. S. P., IX, gives +57° to +64° as the optical rotation for oil of lemon. The best quality of oil frequently has a rotation of 55° 20′ to 56° 20′. The aldehyde content requirement of the U. S. P. should be stated as about 4 to 5 per cent, calculated as citral (phenylhydrazine method). Lemon oils of good quality frequently have a citral content as low as 3.5 per cent.—Semi-Ann. Rep. 1918, Apr.–Oct., p. 56.

Ewe, Geo. E.: Terpeneless oil of lemon varies widely in citral content. It is widely used and superior to oil of lemon in keeping qualities. It should be described in the U. S. P. An assay method, based on the present U. S. P. assay method for citral in oil of lemon, should be provided. A basic standard of 36 per cent citral should be established and permission granted to use an oil in proper proportion based on the citral content of the oil. The citral content in seventeen lots of oil of lemon examined ranged from 12.55 per cent to 67.90 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Parker, C. E., and Hiltner, R. S.: A description of a modification of Hiltner's method for the estimation of citral.—J. Ind. & Eng. Chem. 1918, v. 10, p. 608.

Thurston, Azor.: The refractive index of a commercial sample of oil of lemon examined is given as 1.4779 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +57° to +64°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

Suto, K.: Three lots of terpeneless oil of lemon examined assayed 45.4 per cent, 54.0 per cent, and 92.5 per cent of citral, respectively.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

OLEUM MENTHÆ PIPERITÆ.

Hoshino, K.: Analytical data are given showing the characteristics of peppermint oils obtained from *Mentha arvensis* and *Mentha piperita* cultivated in different localities in Japan.—Chem. Abstr. 1920, v. 14, p. 1409.

Anon.: The U. S. P., IX, gives the specific gravity of peppermint oil as 0.896 to 0.908. The values 0.895 to 0.910 would be more correct. A rotation of −18° has been observed with American oils. The ester content of American oils is frequently as low as 3 per cent.—Semi-Ann. Rep. 1918, Apr.–Oct., p. 57.

Anon.: The identification of a hitherto unknown body, the β, γ-hexenol ester of phenylacetic acid in Japanese peppermint oil is reported. It occurs in the fractions boiling between 250 and 310° C.—Semi.-Ann. Rep. 1918, Apr.–Oct., 39–40.

Thurston, Azor: The refractive index of a commercial sample of oil of peppermint examined is given as 1.4636 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be −23° to −33°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

Roberts, J. G.: A sample of super-rectified Japanese oil of peppermint examined contained only 43.54 per cent instead of "not less than 50 per cent of total menthol" and had an optical rotation of 18.82° instead of 23° to 33°, as required by the U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

OLEUM MENTHÆ VIRIDIS.

Anon.: The lower limit (0.914) for specific gravity of oil of spearmint as given in the U. S. P., VIII, is more correct than the value (0.917) given in the U. S. P., IX. With good American spearmint oil, rotations as low as —34° have been observed.—Semi-Ann. Rep. 1918, Apr.–Oct., 1918, p. 58.

Thurston, Azor: The refractive index of a commercial sample of oil of spearmint examined is given as 1.4894 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be —38° to 55°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

OLEUM MYRCIÆ, N. F.

Robson, W.: A report is given of the yield in oil of bay leaves from the same source over a period of seven consecutive years. The phenol content of 41 samples distilled in 1917 averaged 55 per cent.—Bot. Abstr. 1920, v. 5, p. 111.

Jones, J.: Two samples of oil from varieties of *Pimenta acris*, namely, Bois d'Inde and Bois d'Inde Citronelle, grown in Dominica, are reported on.—Bot. Abstr. 1920, v. 5, p. 109.

Thurston, Azor: The refractive index of a commercial sample of oil of bay examined is given as 1.4937 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be —3°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM MYRISTICÆ.

Anon.: The lower limit (+12°) given in the U. S. P. for the optical rotation of oil of nutmeg should be lowered to +7° 52′. Oil of nutmeg volatilizes comparatively slowly, so that long heating is necessary, otherwise even good oils yield values, which are too high.—Semi.-Ann. Rep. 1918, Apr.–Oct., p. 57.

Thurston, Azor: The refractive index of a commercial sample of oil of nutmeg examined is given at 1.4837 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +12° to +30°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

OLEUM PICIS LIQUIDÆ RECTIFICATUM.

Gane, E. H.: It is suggested that oil of tar be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

OLEUM PIMENTÆ.

Anon.: The U. S. P., IX, states that oil of pimenta is colorless, yellow or reddish, becoming darker with age. We have not yet met with a colorless pimenta oil. The optical rotation of pimenta oil according to our experience, lies between −0° 40′ and −5°.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 57–58.

Thurston, Azor: The refractive index of a commercial sample of oil of allspice examined is given as 1.4975 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be 0° to −4°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 38.

OLEUM PINI PUMILIONIS.

Anon.: The U. S. P., IX, states that no portion of pine needle oil may distill below 170° C. This requirement is too stringent, the initial boiling point should be given as 165° C. in order to make allowance for the facts.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 55.

Boyer, Jacques: Data are presented showing the source of the pine needle oil on the market and the yield obtained from different species of conifers.—Perf. & Ess. Oil Rec. 1920, v. 11 p. 97–98.

Ekecrantz, T.: An investigation of the constitution of Swedish pine needle oil. The ester present was identified as the acetate of l-borneol.—Medd. Kgl. Vetenskaps akad. Nobelinst. 1919, v. 5, p. 1–8, through Chem. Abstr. 1920, v. 14, p. 853.

OLEUM ROSÆ.

Anon.: An account of the distillation of rose oil in Asia Minor.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 210–211.

Anon.: A discussion of methods for the detection of ethyl alcohol in rose oil.—La Parfumerie Moderne, v. 13, p. 135–136, through Chem. Zentralbl. 1920, v. 91, p. 508.

OLEUM ROSMARINI.

Anon.: The U. S. P. requires that the ester content of oil of rosemary be not less than 2.5 per cent. The ester content of good oils has often been observed by us to be as low as 1.2 per cent.—Semi-Ann. Rep. 1918, Apr.–Oct., p. 58.

OLEUM SANTALI.

Anon.: Some notes on the sandalwood oil industry in Western Australia.—The Times Trade Supplement, through Chem. & Drug. 1920, v. 93, p. 1228.

Anon.: For calculating the santalol content of oil of santal, the U. S. P. still adheres to the old formula $C_{15}H_{26}O$, whereas it was shown long ago, and recently by Semmler, that the formula is

$C_{15}H_{24}O$. The minimum requirement of 90 per cent santalol as given in the U. S. P. corresponds to 89.2 per cent, calculated for $C_{15}H_{24}O$.—Semi-Ann. Rep. 1918, Apr.-Oct. p. 58.

Thurston, Azor: The refractive index of a commercial sample of oil of sandalwood examined is given as 1.5061 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be −15° to −20°.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

Thurston, Azor: Analytical data relative to oil of sandalwood and its adulteration are presented. The custom of labeling the oil of *Amyris balsamifera*, "Oil Sandalwood, W. I.," is misleading, according to Federal Opinion No. 29.—J. Am. Pharm. Assoc. 1920, v. 9, p. 36–37.

Anon.: The chemical and physical constants of Australian sandalwood oil obtained from *Fusanus spicatus* are given. These constants indicate that the Australian oil is not comparable with the East Indian sandalwood oil distilled from *Santalum album*, and that it can not replace the latter as its therapeutic properties have not been investigated.—Bull. Imp. Inst. 1920, v. 18, p. 162–166.

Hoshino, K.: Analytical data are given showing the characteristics of sandalwood oil obtained from the roots of the East Indian plant grown in Japan.—Chem. Abstr. 1920, v. 14, p. 1409.

Eli Lilly & Company: A sample of sandalwood oil examined, supposed to be an Australian product, on assay showed 70 per cent santalol. A normal East Indian oil will assay not less than 90 per cent santalol.—Proc. N. W. D. A. 1920, p. 359.

Massera: Notes on the determination of santalol in oil of sandalwood, with special reference to the method given in the Ph. Ital.—Boll. chim.-farm. 1920, v. 59, p. 268–269.

Anon.: Attention is called to the adulteration of sandalwood oil with benzyl alcohol. The lower boiling point of benzyl alcohol enables it to be detected in fractions which distill considerably below the initial boiling temperature of pure sandalwood oil.—Schimmel's Rep., through Perf. & Ess. Oil Rec. 1920, v. 11, p. 105.

OLEUM SASSAFRAS.

Anon.: The lower limit for specific gravity of oil of sassafras given in the U. S. P. IX is 1.065. A lower limit of 1.063 would be more correct. We have observed optical rotations as low as +2° for oils distilled by ourselves.—Semi.-Ann. Rep. 1918, Apr.–Oct. p. 58.

Thurston, Azor: The refractive index of a commercial sample of oil of sassafras (natural) examined is given as 1.5299 at 20° C. The optical rotation in a 100 mm. tube at 25° C. should be +3° to +4°. The refractive index of commercial safrol at 20° C. was found to be 1.4684.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

Grant, E. H.: A method for the detection of camphor oil in natural oil of sassafras is based on the color reaction which results with paranitraniline.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1065–1066.

OLEUM SINAPIS VOLATILE.

Cauda, A.: Notes on the factors affecting the yield of volatile mustard oil.—Le Stazioni sperimentali agrarie italiane, 1919, v. 52, part 10–21, p. 544–548, through Intern. Rev. Sc. & Practice of Agric. 1920, v. 11, p. 555–556.

Anon.: The lower limit (1.013) given in the U. S. P. for the specific gravity of volatile oil of mustard is too high. It should be lowered to 1.006. The refractive index ranges between 1.527 and 1.531 at 20° C.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 57.

Dulière, Walter: Notes on the volatile oil of mustard, its impurities and adulterants. Natural oil of mustard obtained from black mustard seed contains, in addition to allyl isosulphocyanide, small quantities of allyl cyanide and carbon disulphide. A sample of artificial oil of mustard examined was found to be adulterated with 70 per cent of ethyl alcohol and to contain about 5 per cent of sulphites and polysulphites as impurities.—J. pharm. Belg. 1920, v. 2, p. 981–983.

Éwe, Geo. E.: A report of experiments with the use of a dilute mucilage of tragacanth as a base for the application of mustard oil. This base is stated to be more effective than one consisting of oleaginous material.—Am. J. Pharm. 1920, v. 92, p. 234–236.

OLEUM TEREBINTHINÆ.

Veitch, F. P., and Grotlisch, V. E.: Oil of turpentine, its sources, properties, uses, transportation, and marketing, with recommended specifications.—Bull. U. S. Dept. Agric. 1920, No. 898, p. 1–51.

Anon.: A review of conditions in the turpentine-oil industry prevailing during 1917, including a summary of research work on the oil.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 44–50.

Fosse, H. W.: A report of an investigation of Norwegian oil of turpentine.—Deutsch. pharm. Gesellsch. 1915, v. 25, p. 303, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 117.

Dorronsoro, B., and Fernandez, O.: The authors report having isolated nopinene from Spanish oil of turpentine extracted from *Pinus Halepensis*.—Ann. Soc. Esp. Phys. et Chim. v. 12, p. 424, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 116.

Simonsen, John L.: A chemical study of the constituents of Indian turpentine obtained from *Pinus longifolia*, Roob.—J. Chem. Soc. Lond. 1920, v. 117, p. 570–578.

Anon.: A value of 0.858 would be more correct for the lower limit of specific gravity of oil of turpentine than 0.860, as given in the U. S. P. IX.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 59.

Taylor, E. M.: The iodine number of turpentine oil obtained by allowing a solution of iodine tribromide in chloroform to react for one minute is about 370. The reaction with Wijs solution is never complete.—Chem. Umschau, 1920, v. 27, p. 163.

Krieger, A.: A test for determining the purity of oil of turpentine, said to be simpler than that of Herzfeld, Marcusson, or Eibner, is described.—Chem. Umschau, 1916, p. 77, through Chem. & Drug. 1920, v. 93, p. 10.

Allina, A. and Salvaterra, H.: An investigation of the methods of Herzfeld and of Marcusson for the determination of benzine in oil of turpentine, with a description of a new method devised by the authors.—Chem.-Ztg. 1920, v. 44, p. 673–674 and 697–698.

Grimaldi and Prussia: A description of a method for the determination of petroleum in oil of turpentine. The method is based on the oxidation of pinene by means of mercuric acetate.—Chem.-Ztg. 1914, v. 38, p. 1001, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 31.

Linde, O.: Oil of turpentine is frequently adulterated with refined pine oil and with resin essence. A test for these substances should therefore be introduced into the Ph. Germ.—Apoth.-Ztg. 1920, v. 52, p. 465.

Tauss: New methods for the detection of adulterants in turpentine oil are described.—Chem.-Ztg. 1918, v. 42, p. 349, through Pharm. Zentralh. 1920, v. 61, p. 83.

OLEUM TEREBINTHINÆ RECTIFICATUM.

Anon.: The lower limit for the specific gravity of rectified oil of turpentine should be given as 0.853 instead of 0.856 as stated in the U. S. P. IX.—Semi-Ann. Rep. 1918, Apr.–Oct. p. 59.

OLEUM THYMI.

Canals: A study of the influence of different solar rays on the formation of volatile oil in the thyme plant.—Bull. soc. chim. France, 1917, v. 21, p. 204, through Semi-Ann. Rep. 1918, Apr.–Oct. p. 50.

Holmes, E. M.: Notes on Spanish oil of thyme, with special reference to its carvacrol and thymol content.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 338–339.

Parry, Ernest J.: Thymol was found to be the predominating phenol present in six samples of Spanish thyme oil examined. This is contrary to the opinion generally held, namely, that Spanish thyme oil contains mostly carvacrol.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 139.

Thurston, Azor: The refractive index of a commercial sample of oil of thyme (white) at 20° C. should be slightly levorotatory. The refractive index of a commercial sample of red oil was found to be 1.4925 at 20° C.—J. Am. Pharm. Assoc. 1920, v. 9, p. 39.

OPII PULVIS.

Éwe, Geo. E.: It is suggested that fuller's earth should be excluded from the term "inert diluent," or that milk sugar should be specified instead of "inert diluent." Milk sugar is a practical inert diluent. Fuller's earth is popularly considered as an inert substance but actually reduces the apparent strength of the powder. A specific inert diluent is desirable for purposes of uniformity. This suggestion also applies to deodorized opium and granulated opium.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Éwe, George E.: Of 3 samples of opium powder examined, 2 were above and 1 was below the U. S. P. standard of 10 per cent morphine.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 21.

OPIUM.

Anon.: Statistics are given on the sources of supply and on the importation of opium for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 18–22.

Anon.: It is stated that the opium poppy is being grown extensively in parts of Fukien Province, China, despite the law against it.—Oil, Paint & Drug. Rep. 1920, v. 98, No. 2, p. 73.

Anon.: Statistics are given relative to the trade in opium and morphine for the year 1919.—Drug & Chem. Markets, 1920, v. 6, No. 1, p. 1–2.

Anon.: A review of the condition of the opium market in Turkey during 1919.—Oil, Paint & Drug. Rep. 1920, v. 97, No. 10, p. 53 (Section I).

Jermstad: Statistics are given showing quantities of opium exported from Asia Minor for the period 1860 to 1918.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 627–628.

Anon.: It is reported that about 150 cases of opium on the average, destined for the United States and England, are being shipped monthly from Smyrna.—Com. Rep. 1920, No. 42, p. 1010.

Annett, H. E.: A study of the factors influencing alkaloidal content and yield of latex in the opium poppy. A summary of work which is being published in the Memoirs of the Department of Agriculture of India.—Biochem. J., 1920, v. 14, p. 618–636.

Leake, H. M., and Annett, H. E.: A report of studies on the production of Indian opium for medical purposes.—Agric. J. India, 1920, v. 15, p. 124–134, through Chem. Abstr. 1920, v. 14, p. 2965.

Anon.: A book review of a small volume by Ellen N. LaMotte entitled *The Opium Monopoly*.—Pharm. Era, 1920, v. 53, p. 113.

Jermstad, Axel: A continuation of an article dealing with the history of the chemical study of opium.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 116–119.

Biscaro, G.: A note calls attention to a sample of opium which was found to be alkaline instead of acid as is usually the case.—Boll. chim.-farm. 1920, v. 19, p. 361.

Jermstad: Notes on the analysis and the identification of different kinds of smoking opium.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 249–252.

Thomson, James L.: Data are given showing the ammonium salts content of various opiums.—Pharm. J. 1920, v. 105, p. 550; Chem. & Drug. 1920, v. 93, p. 1772.

Rosenthaler: Microchemical methods for the detection of opium are described. The methods are based on the behavior of opium toward formaldehyde-sulphuric acid and toward ammonia.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 313–315.

Macmillan, Alex. M., and Tingle, Alfred: A study of the effect of prolonged heating on opium, with special reference to its effect on the morphine and moisture content.—Am. J. Pharm. 1920, v. 92, p. 810–815.

Jermstad, Axel: Author's abstract of a monograph dealing with a critical study of the determination of morphine in opium. All known methods were tested. A modified Helfenberg method suitable for the text of national pharmacopœias is described.—Répert. Pharm. 1920, v. 32, p. 257–262. See also Schweiz. Apoth.-Ztg. 1920, v. 58, p. 277–280, 289–293, 301–305, 421–423, and 462–464.

Dott, D. B.: A discussion of the opium assay from an international standpoint. The assay methods of the British, French, and Japanese Pharmacopœias are critically compared step by step. As an international method, that of the British Pharmacopœia with suitable modifications is recommended.—Pharm. J. 1920, v. 104, p. 199–200.

Jones, Arthur J.: A critical review of a standardized method for the assay of opium proposed by D. B. Dott. Two slight errors in the method are pointed out.—Pharm. J. 1920, v. 105, p. 550–551; Chem. & Drug. 1920, v. 93, p. 1772.

Shilston, H. P.: Notes on an international method for the assay of opium, with some criticisms of the method proposed by Dott.—Pharm. J. 1920, v. 104, p. 413.

Giuseppe, Biscaro: Notes on the opium assay, with special reference to the menstruum used for the extraction of the alkaloids.—Boll. chim.-farm. 1920, v. 59, p. 361–363.

Hilton, S. L.: In the assay of opium it is suggested that the gravimetric method be used, as it is more satisfactory, does not take any more time and the results are just as accurate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Jones, H. W.: It is suggested that the U. S. P. directions for the collection of morphine crystals in the assay of opium be changed so that they will call for the use of a filter paper having a diameter of 9 cubic centimeters instead of a pledget of cotton. Data showing the difference in the results obtained under both conditions are presented.—J. Am. Pharm. Assoc. 1920, v. 9, p. 51–52.

Berg, Frantz F.: It is recommended that an alundum or Gooch crucible be used in place of a pledget of cotton in the neck of a funnel for the collection of the morphine crystals in the U. S. P. asay for opium.—J. Am. Pharm. Assoc. 1920, v. 9, p. 775.

H. M.: It is suggested that the new edition of the Ph. Germ. require that samples of opium taken for the morphine assay be dried at 120° C. for a definite length of time.—Sudd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Heiduschka, A.: A simplified formula is given for computing the amount of morphine obtained in the morphine assay of the Ph. Helv. IV.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 6.

Burdick, Alfred S.: It is suggested that in the opium assay the morphine crystals should be washed with morphinated water until free from ammonia.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408.

Anneler, E.: A note on the separation of morphine from accompanying opium alkaloids in the opium assay for morphine.—Arch. Pharm. 1920, v. 258, p. 130.

Tingle, Alfred: Under the assay of opium, omission of the preliminary extraction of opium by water and the substitution of some method by which the whole of the sample taken for assay would be treated with lime or some similar alkaline base is recommended. It is not wished to exploit any one lime method rather than another, but the adoption of either the B. P. 1914 method or that of Stevens (Pharm. Archives) preferably modified by increasing weight of sample as in Allen's *Commercial organic Analysis* VI, 425, fourth American edition, where, however, the factor requires correction, is suggested. The recognized fact that some of the morphine present in opium cannot be extracted by water is the reason for this proposal.—J. Am. Pharm. Assoc. 1920, v. 9, p. 408–409.

Ugarte, Trifón: A description of a new method for the determination of morphine in opium. The method is said to possess the advantages of requiring but a small quantity of the substance and to yield results sufficiently accurate for all practical purposes in a short space of time.—Anales. soc. quim. Argentina, 1920, v. 8, p. 268–270.

Rapp: A description of a new practical method for the determination of alkaloids, with special reference to the determination of morphine in opium and its preparations.—Apoth.-Ztg. 1920, v. 35, p. 17–20.

Annett, H. E., and Sen, H.: A method for the estimation of codeine depends on the fact that when opium is treated with slaked lime and water all the morphine and codeine pass into solution. The codeine can then be completely separated from the lime solution by agitation with toluene.—Analyst (The), London, 1920, v. 45, p. 321–328.

Gesell, J., and Marschalgo, B.: A method for the estimation of certain opium alkaloids consists in converting the methyl radical of the methoxy group into iodoform by means of hydriodic acid, decomposition of the iodoform by means of alcoholic silver nitrate solution and the determination of the iodine in the double salt ($AgI.2AgNO_3$) formed.—Ztschr. anal. Chem. 1914, v. 53, p. 673, through Pharm. Zentralh. 1920, v. 61, p. 68.

Browns, Frank: Data are given relative to the constituents of opium smoke.—Pharm. J., 1920, v. 104, p. 274.

DeHaan, H.: A contribution to the pharmacy of opium. Analytical data are given showing the effect of the use of N/10 hydrochloric acid on the alkaloidal content of the extract and tincture.—Pharm. Weekblad, 1920, v. 57, p. 1483–1485.

Späth, Ernst: A report of researches to determine the constitution of laudanine.—Monatsh. Chem. 1920, v. 41, p. 297–304.

Thoms, H. and Pietrulla: An address in which the synthesis of meconic acid is described. The synthesis indicates that the acid is a dicarboxylic derivative of hydroxypyrone.—Pharm. Monatsh. 1920, v. 1, p. 146–147.

Uhlmann, Fr., and Abelin, J.: A study of the action of opium and its derivatives on the intestines. A bibliography of 314 titles is appended.—Ztschr. exper. Path. u. Therap. 1920, v. 21, p. 58–74.

Uhlmann and Abelin: A report of pharmacological experiments to determine the value of some new opium preparations—pavon, mecopan, and pantopon.—Ztschr. exper. Path. u. Therap. 1920, v. 21, p. 75.

Hankin, E. A., and Chatterji, D.: Data obtained in the toxicological examination of 53 cadavers for traces of opium due to opium poisoning are presented.—Analyst (The), London, 1920, v. 45, p. 171.

OVUM GALLINACEUM, N. F.

Jones, Hilton I., and DuBois, Robert: A review of methods for the preservation of eggs, including an extensive bibliography.—J. Ind. & Eng. Chem. 1920, v. 12, p. 751–757.

OXYGENIUM.

Barcroft, J.: A discussion of the therapeutic uses of oxygen.—Proc. Roy. Soc. Med., Sec. Therap. & Pharmacol. 1920, v. 13, part 3, p. 59–95. See also R. D. Rudolf, Am. J. Med. Sc. 1920, v. 160, p. 10–18.

PANCREATINUM.

Sherman, H. C., et al.: A report of further studies on the purification of pancreatic amylase.—J. Am. Chem. Soc. 1920, v. 42, p. 1900–1907.

Fenger, Frederick: Report of the subcommittee on pepsin and pancreatin. It is recommended that a formal recommendation be sent to the revision committee of the U. S. P., requesting that the peptonizing test now employed be discontinued and that the Fuld Gross method be adopted in lieu thereof. A standard proteolytic power of 1:25 is suggested.—Proc. Am. Drug. Mfg. Assoc. 1920, p. 282.

Anon.: According to the new supplement to the Ph. Fr., pancreatin is required to peptonize at least 50 times its own weight of dried fibrin.—Chem. & Drug. 1920, v. 92, p. 456.

Roberts, J. G.: An excess of fat equal to about one and one-third times the U. S. P. limit was found in one lot of pancreatin examined. A lot received in exchange for the one returned contained about 17 per cent excess.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

PARAFFINUM.

Wilhelm, R. M., and Finkelstein, J. L.: A description of a standardized method for the determination of solidification points, especially of naphthalene and paraffin.—Sci. Papers Bur. Stand. 1919, No. 340, p. 158–197.

Kelber, C.: A report of experiments on the oxidation of paraffin with oxygen. The reaction takes place with great rapidity in the presence of certain catalyzers such as the oxides of manganese.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 63–71, 1567–1577.

PARALDEHYDUM.

Gane, E. H.: It is suggested that paraldehyde be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Electric Furnace Products Co., Toronto, Canada: Norwegian patent No. 309490 describes the manufacture of paraldehyde, practically free from acetaldehyde.—Chem.-Ztg. Beil. 1920, v. 44, p. 195.

Stüwe, W.: A criticism of the von Bruchhausen method for the determination of acetaldehyde in paraldehyde. A method stated to be superior to the sulphite process is described by the author.—Apoth.-Ztg. 1920, v. 35, p. 153–154.

PELLETIERINÆ TANNAS.

Tanret, Georges: Issue is taken with Hess and Eichel who propose to eliminate the term "isopelletierine" and use pelletierine for the optically inactive form (called isopelletierine by Tanret) as they did not isolate the optically active form.—Compt. rend. Acad. sc. 1920, v. 170, p. 1118–1120.

PEPSINUM.

Hammarsten, O.: It is concluded that pepsin and rennin are two distinct enzymes inasmuch as the latter acts on syntonin forming proteoses at an acid concentration at which pepsin is inactive.—Physiol. Abstr. 1920, v. 5, p. 9.

König, A.: A report of studies to determine the influence of temperature on enzymes, especially rennin and pepsin. On account of the differences observed in their reactions to rise in temperatures, rennin and pepsin are considered as two separate enzymes.—Biochem. Ztschr. 1920, v. 110, p. 266–286.

Anon.: According to the new supplement to the Ph. Fr., pepsin is required to peptonize at least 100 times its own weight of dried fibrin.—Chem. & Drug. 1920, v. 92, p. 456.

Fenger, Frederick: Report of the subcommittee on pepsin and pancreatin. As a substitute for the U. S. P. method of separating the egg albumen particles in the pepsin assay, it is recommended that the materials be placed in a wide-mouthed bottle of 100 cubic centimeters' capacity and that the bottle be pounded vigorously 75 times on a thick soft rubber pad or well-stuffed canvas cushion.—Proc. Am. Drug. Mfg. Assoc. 1920, p. 282.

Bachstez, M.: A contribution to the evaluation of pepsin. A modified Gross method is recommended, and data obtained by the use of the method are presented.—Pharm. Zentralh. 1920, v. 61, p. 479–481.

Funck, Erich: The Ph. Germ. directions for determining the purity and digestive power of pepsin should be made more complete.—Apoth.-Ztg. 1920, v. 35, p. 61. See also Funck and Müller, Schweiz. Apoth.-Ztg. 1920, v. 58, p. 610.

Gyemant, A.: A report of studies to determine the mechanism of pepsin activity.—Biochem. Ztschr. 1920, v. 106, p. 155–168.

Northrup, John H.: Studies on pepsin are reported under the following heads: Influence of hydrogen-ion concentration on the inactivation of pepsin solutions; effect of the concentration of enzyme on the rate of digestion of proteins by pepsin; influence of subtrate concentration on the rate of hydrolysis of proteins by pepsin.

Gross, O.: Data showing the value of commercial pepsin wines are reported. Of 13 samples examined all were almost or entirely devoid of peptic activity.—Deutsch. med. Wchnschr. 1919, v. 45, p. 823.

Chenisse, L.: A review of the advantages of the external application of pepsin, based on its property of dissolving the horny layer of the skin. A formula for the treatment of scar tissue is given.—Presse médicale, 1920, v. 28, p. 325, through Chem. & Drug. 1920, v. 93, p. 1283.

PERSIO, N. F.

Ewe, George E.: The lots of cudbear examined during the past year answered all N. F. requirements and yielded ash ranging from 3.27 to 22.90 per cent. The N. F. permits not more than 35 per cent of ash. It would appear that this requirement is rather lenient.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 112.

PETROLATUM.

Copeland, Henry T.: It is suggested that no changes be made in the U. S. P. text for petrolatum without full discussion with the manufacturers.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

PETROLATUM LIQUIDUM.

Christie, A. W. and Bisson, C. S.: A description of a rapid method for the determination of sulphur in petroleum oils. After combustion of the oil in a bomb, the sulphur is separated as insoluble benzidine sulphate and determined by titration with standard potassium permanganate.—J. Ind. & Eng. Chem. 1920, v. 12, p. 171–172.

PETROXOLINI.

Lascoff, J. L.: It is recommended that some of the petroxolins be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

PHENOL.

Anon.: According to the new supplement to the Ph. Fr., the melting point for phenol has been altered from 42.5° to 41°.—Chem. & Drug. 1920, v. 92, p. 456.

The Barrett Company: It is suggested that the congealing point in phenol be changed from 38° to 39° C. A phenol melting as low as 38° C. is a rather impure material and the specification should be raised in order to insure greater purity. A higher specification will not be a serious drawback to manufacturers practically all of whom are now working with a specification of 39° C.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

Escaïch, A.: Weak solutions of phenol give a green color changing to blue or yellow when 5 to 10 drops of ammonia water, 0.05 to 0.10 gram of sodium persulphate and 4 to 5 drops of N/10 silver nitrate solution are added.—J. pharm. et. chim. 1920, v. 22, p. 140–141.

Chapin, Robert M.: An investigation of the diazometric method for the determination of phenol and certain of its homologs.—J. Ind. & Eng. Chem. 1920, v. 12, p. 568–570.

Chapin, Robert M.: A description of a new method for the determination of phenol in the presence of other phenols. The method is based on the red color yielded by Millon's reagent with phenol under certain conditions, but not with phenols in general.—J. Ind. & Eng. Chem. 1920, v. 12, p. 771–775.

Kolthoff, I. M.: A report of studies in the titration of phenols by the electrometric method.—Ztschr. anorg. Chem. 1920, v. 112, p. 187–195.

Eldson, G. D.: A description of a modified Wilkie method for the determination of phenol and salicylic acid in the Ph. Brit. ointments. The method requires the addition of an excess of N/10 iodine solution to a solution of the phenol or salicylic acid rendered alkaline by sodium carbonate, and the titration of the excess of iodine after acidification.—Pharm. J. 1920, v. 105, p. 86; Chem. & Drug. 1920, v. 93, p. 1066.

Gates, George M.: An article dealing in a general way with phenol poisoning, its prevention and treatment.—Pacific Drug. Rev., 1920, v. 32, No. 3, p. 24–26.

PHENOL LIQUEFACTUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the following note be added to the official text for liquefied phenol: When phenol is to be mixed with collodium, fixed oils, or petrolatum, use melted crystalline phenol instead of liquified phenol.—Am. J. Pharm. 1920, v. 92, p. 560.

PHENOLPHTHALEINUM.

Anon.: A list of trade names is given under which phenolphthalein preparations and combinations are advertised.—J. Am. M. Assoc. 1920, v. 74, p. 30.

Utz, F.: The amounts of phenolphthalein in grams contained in 100 cubic centimeters of a warm saturated solution of the following organic solvents are given: ethyl alcohol, methyl alcohol, acetone, chloroform, carbon disulphide, ether, petroleum ether, benzene, carbon tetrachloride, xylene, toluene, nitrobenzene, ethyl acetate and water.—Südd, Apoth.-Ztg. 1920, v. 60, p. 430–431, 442–444.

Palkin, Samuel: A study of the behavior of phenolphthalein toward iodine and a description of a method for the determination of phenolphthalein. The method is based on the quantitative yield of tetraiodophenolphthalein, when a solution containing phenolphthalein and iodine is alternately made alkaline to complete solution, and acid to complete precipitation, at a low temperature.—J. Ind. & Eng. Chem. 1920, v. 12, p. 766–769.

PHYSOSTIGMA.

Rusby, H. H.: Physostigma should be referred to the family *Papilionaceæ*.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Gane, E. H.: It is suggested that physostigma be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Physostigma should be retained in the U. S. P., as the eserine which it contains is constantly employed in the form of a solution for diseases of the eye, while the physostigmine salicylate has value as a sedative and diaphoretic.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Éwe, Geo. E.: It is stated that the present U. S. P. assay method for physostigma does not yield reliable results. See J. Am. Pharm. Assoc. 1919, December, for a proposed method.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

Rosenthaler, L.: Data are given showing the variation of the alkaloidal content of Calabar beans as related to the weight per unit volume.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 13, 19–22, 396–397.

Éwe, George E.: Six samples of physostigma examined were above the U. S. P. standard of 0.15 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

PHYSOSTIGMINÆ SALICYLAS.

Heflebower, R. C.: A note on the properties and uses of eserine in medicine.—Eclectic M. J. 1920, v. 80, p. 68–69.

PHYTOLACCA, N. F.

Coates, U. A.: A short article dealing with the history of the use of poke root in medicine.—Pharm. J. 1920, v. 105, p. 451.

Holmes, E. M.: A note on the use of poke root in medicine, with special reference to the treatment of cancer and ulcers.—Pharm. J. 1920, v. 105, p. 417.

PILOCARPINÆ HYDROCHLORIDUM.

LeHeux, J. W. et al.: A study of the antagonism between pilocarpine and tropine.—Arch. ges. Physiol. 1920, v. 184, p. 215–235, through Chem. Abstr. 1921, v. 15, p. 708; see also Ernst Billigheimer, Arch. exper. Path. u. Pharmakol. 1920, v. 88, 172–178.

PILOCARPUS.

Éwe, George E.: Four samples of pilocarpus examined were above the U. S. P. standard of 0.6 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

PILULÆ, N. F.

Bouvet: Practical notes on the gelatin coating of pills, including formulas and illustrations of modern apparatus.—Bull. sc. pharmacol. 1920, v. 27, p. 634–638.

Gronberg, John: A report of investigations to determine the rate of disintegration of pills as affected by the constituents of the mass and coating.—Pharm. J. 1920, v. 104, p. 197–198.

Scheringa, K.: A description of a method for the determination of the quinine content of quinine pills.—Pharm. Weekblad, 1920, v. 57, p. 422.

PILULÆ PHOSPHORI.

Gane, E. H.: It is suggested that pills of phosphorus be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

PINUS ALBA, N. F.

Ewing, C. O.: A note calls attention to the adulteration of white pine bark with the outer bark of *Ulmus fulva* L.—J. Am. Pharm. Assoc. 1920, v. 9, p. 253.

Éwe, George E.: Three lots of white pine bark examined were rejected, two because they were not stripped of the outer bark, and the other because it was wormy.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

PIPER.

de Candolle, Casimir: Some new Central American species of *Piper* are described.—Bot. Gaz. 1920, v. 70, p. 169–189.

PIX LIQUIDA.

Rusby, H. H.: All things considered, the definition for tar is doubtless as absurd a definition as has ever been found in any edition of our Pharmacopœia. "A product obtained by the destructive distillation of wood" might be any one of the following articles or of a number of others which are not named: tar, oil of tar, pix navalis, toluol, naphthol, naphthalin, creosote, guaiacol, creosol, paraffin, amyl alcohol, acetic acid, smoke, lamp black, or charcoal. The former definition, "An empyreumatic oleoresin," was about as nearly perfect as it can be made. The committee of revision should see to it that this definition is restored.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

PLUMBI ACETAS.

Osaka, Y., and Hara, R.: Solubility of lead acetate. One hundred parts of water dissolve 54.38 parts of lead acetate at 25°, 87.77 parts at 35°, and 154.25 parts at 45°.—Mem. coll. sc. Kioto, 1917, p. 147, through J. pharm. Belg. 1920, v. 2, p. 964.

Mayrhofer, Adolf: Microchemical methods for testing the identity and purity of lead acetate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 235.

PLUMBI CARBONAS, N. F.

McMaster, L., and Goldstein, A. E.: A description of a modification of the Thomson method for the determination of acetic acid in white lead.—J. Ind. & Eng. Chem. 1920, v. 12, p. 170–171.

PLUMBI IODIDUM, N. F.

Mayrhofer, Adolf: Microchemical methods for testing lead iodide for identity and purity are outlined.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 57.

PLUMBI OXIDUM.

Mayrhofer, Adolf: Descriptions are given of microchemical methods for the identification and purity of lead oxide.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 57–58.

PODOPHYLLUM.

Francis: The possibility of importing from India and substituting for ordinary mandrake *Podophyllum emodi* is suggested as worthy of consideration. The latter is stated to yield from 5 to 9 per cent of resin, whereas it is extraordinary to find a native drug running higher than 6 per cent of resin.—Proc. Am. Drug Mfg. Assoc. 1920, p. 288.

Grant, E. H.: A new test for podophyllum is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 764.

Dohme and White: A percolation method and an aliquot method for the assay of podophyllum are described. Data are given showing the results obtained by these methods in several assays.—Proc. Am. Drug Mfg. Assoc. 1920, p. 267–268.

Éwe, George E: It is suggested that the resin finally obtained in the U. S. P. precipitation assay method for podophyllum be dried at 100° C. instead of spontaneously in the air or that the "shake-out" method mentioned under fluidextract of podophyllum be adopted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

Lampa, Robert R.: The average ash content of mandrake root found on the market is 10 per cent. The U. S. P. allows not over 3 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E.: Of 15 samples of podophyllum examined, 12 were above and 3 were below the U. S. P. standard of 3 per cent resin.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Eli Lilly & Co.: Several bags of a shipment of mandrake examined consisted of other roots and inferior mandrake. One bag of another shipment contained Canada snakeroot.—Proc. N. W. D. A. 1920, p. 359.

POTASSII BICARBONAS.

Roberts, J. G.: One lot of potassium bicarbonate examined was rejected because it was dirty.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

POTASSII BITARTRAS.

Mayrhofer, Adolf: Microchemical tests for the identity and purity of potassium bitartrate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 293.

Bachman, Gustav: Four samples of cream of tartar examined were of U. S. P. strength, being free from adulterations, such as ammonium carbonate, starch, or alum.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

Anon.: A sample of cream of tartar purchased in England was found to contain 140 parts of lead per million.—Brit. Food J. 1920, v. 22, p. 16.

POTASSII BROMIDUM.

Anon.: A test for the presence of chlorides in potassium bromide has been added to the Ph. Fr., according to the new supplement.—Chem. & Drug. 1920, v. 92, p. 456.

Joseph, Alfred F.: The solubility of potassium bromide in bromine water. The solubility of potassium bromide in water at 32.4° is

725.6 grams per 1,000 grams of water. The increased solubility of potassium bromide in the presence of bromine equals one-third of the bromine concentration between 0 and 382.1 grams of bromine per 1,000 grams of water.—J. Chem. Soc. Lond. 1920, v. 117, p. 377–381.

POTASSII CHLORAS.

H. M.: It is recommended that the Ph. Germ. test for the presence of bromate in potassium chlorate be modified so that the aqueous solution does not become turbid immediately upon the addition of hydrogen sulphide.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Engelhardt, H.: One shipment of potassium chlorate examined contained a considerable amount of nitrates and nitrites and also exhibited a rather dark color.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

POTASSII CITRAS EFFERVESCENS.

Gane, E. H.: It is suggested that effervescent potassium citrate be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

POTASSII HYDROXIDUM.

Thum, John K.: There should be a requirement that potassium and sodium hydroxides be free of chlorides. Both are largely used in the making of liquid soap and it is well known that chlorides precipitate soap. The merest traces interfere with the making of a perfectly clear liquid soap.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

Engelhardt, H.: A large shipment of caustic potash examined contained 80 per cent of caustic calculated as KOH, 15.1 per cent of chlorine as chlorides, 9.6 per cent of CO_2 as carbonates and a considerable excess of sodium. Most of the samples of caustic potash submitted contained an excess of sodium and chlorides.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

POTASSII IODIDUM.

Kolthoff, I. M.: The titration of potassium iodide with mercuric chloride is discussed from the standpoint of concentration and temperature. The effect of adding various reagents is also given consideration.—Pharm. Weekblad, 1920, v. 57, p. 836–842.

Roberts, J. G.: One lot of potassium iodide examined was of undesirable quality on account of the presence of considerable sodium. The presence of an impurity was also shown by the assay, which gave an indicated strength of 107.6 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

POTASSII PERMANGANAS.

Engelhardt, H.: One shipment of potassium permanganate examined assayed only 95.3 per cent of absolute potassium permanganate. Another shipment was considerably contaminated with iron oxide.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

PRUNUS VIRGINIANA.

Rusby, H. H.: Wild cherry should be referred to the family *Drupaceæ.* It appears now to be quite clearly determined that Linné actually did have the plant yielding our official wild cherry bark when he named and described his *Prunus virginiana*, and that we have been in error all along in calling the latter *Prunus serotina.* Another question arising in this connection is whether to separate those species now held under *Prunus* which bear their flowers in racemes, assigning them to the separate genus *Padus.* There is conconsiderable of a disposition among botanists of the present day to hold *Padus* a distinct genus.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 244.

Éwe, George E.: Considerable of the wild cherry bark offered for sale is so thick as to indicate that the bark was obtained from the large branches or even the trunk of the tree. The U. S. P. requires that this should be stem bark, the thick barks being deficient in flavor.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

PULVIS EFFERVESCENS COMPOSITUS.

Bachman, Gustav: Of 8 samples of Seidlitz powders examined, it was found that the powders in the blue papers of many were short in weight. The contents of the white papers were quite uniform.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

PULVIS GLYCYRRHIZÆ COMPOSITUS.

Hommell, P. E.: Compound licorice powder and the compound mixture of licorice should be placed in the National Formulary, likewise the elixir of licorice.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

QUASSIA.

Rusby, H. H.: It seems desirable that the label of any lot of quassia or of its preparations should bear a statement as to which of the varieties it pertains.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Gluecksmann, C.: A new reaction for the detection of quassia is based on the rose-red color produced on adding a trace of phloroglucinol and 5 cubic centimeters of fuming hydrochloric acid to 5 cubic centimeters of a 2 per cent alcoholic solution of the extract.—Pharm. Monatsh. 1920, v. 1, p. 176–180.

Ewe, George E.: One lot of quassia chips examined was very dirty and was, therefore, rejected.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

QUILLAJA, N. F.

Cofman-Nicoresti, Jules, and Tallantyre, Snow B.—The results obtained in the examination of quillaja bark and commercial saponins are presented and discussed.—Pharm J. 1920, v. 105, p. 94–97; Chem. & Drug 1920, v. 93, p. 96–97.

Lampa, Robert R.: The average ash content of soap bark found on the market is 12.35 per cent. The N. F. allows not over 10 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 27; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

QUINIDINA, N. F.

Eli Lilly & Co.: One lot, purporting to be quinidine, proved, upon examination, to be cinchonine.—Proc. N. W. D. A. 1920, p. 359.

QUININA.

White, F. A.: A historical article dealing with quinine and its discoverers.—Am. Druggist, 1920, v. 68, No. 12, p. 20–23.

Anon.: Some statistical notes on the Dutch monopoly in quinine. According to the new agreement with Java cinchona planters, Dutch manufacturers will control the output of quinine until 1924.—Drug & Chem. Market, 1920, v. 6, p. 295.

N. V. Nederlandsche Kininefabriek and Semerangsche Administratie Maatschappij, Dept. Bandoengsche Kininefabriek: In order that quinine throughout the world may be available to as great an extent as possible and of a generally accepted constant quality, it is recommended that the new U. S. P. standard be made according to that of B. P. 1898. For the same reason the British Government has abolished the new standard of the B. P. 1914, and put into force again the standard of the B. P. 1898.—J. Am. Pharm. Assoc. 1920, v. 9, p. 410.

Schamelhout, A.: A tentative monograph on quinine proposed for introduction into the Belgian National Formulary is given—J. pharm. Belg. 1920, v. 2, p. 970.

Gane, E. H.: It is suggested that quinine valerate be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hart, William B.: A discussion of the origin, development and value of the thalleioquin reaction.—J. Soc. Chem. Ind. 1921, v. 40, p. 72–73T.

Salomon, Hans: The sensitiveness of the thalleioquin reaction for quinine can be increased from 1 in 10,000 to 1 in 40,000 by the use of bromine water in place of chlorine water.—Arch. Pharm. v. 28, p. 273, through Pharm. Zentralh. 1920, v. 61, p. 32.

Ganassini, D.: Two new color reactions of quinine are described. One consists in the development of a yellow color with pyridine which finally becomes purple. The other is an amplification of the thalleioquin reaction.—Arch. ital. biol. 1919, v. 69, p. 73, through J. Chem. Soc. Lond. 1920, v. 118, part 2, p. 339.

Dohme, A. R. L.: The test for foreign cinchona alkaloids in quinine and its salts should be revised. The amount of ammonia water (7 cubic centimeters) permitted by the present U. S. P. is entirely too high and would permit quinine or quinine salts with as much as 8 per cent of foreign cinchona alkaloids. There is no reason why such salts should be used, especially since the purification of quinine sulphate is not very difficult. In no foreign pharmacopœia is such a large amount of ammonia water permitted.—J. Am. Pharm. Assoc. 1920, v. 9, p. 409.

Mossler, G.: An attempt is made to utilize the effect of the presence of sodium sulphate on the solubility of the sulphates of quinine, cinchonine, cinchonidine, quinidine and hydroquinine in water as a means of testing quinine salts for secondary alkaloids.—Pharm. Monatsh. 1920, v. 1, p. 2–7, 17–22.

Scheringa, K.: A description of a method for the determination of quinine sulphate in quinine pills.—Pharm. Weekblad. 1920, v. 57, p. 422.

Nierenstein, Maximilian: A note on the oxidation of quinine with hydrogen peroxide states that haemoquinic acid could not be identified, quitenine being the only oxidation product found.—Biochem. J. 1920, v. 14, p. 572–573.

Keulemans, N.: Decoctions of Irish moss, linseed, salep and marsh mallow root are coagulated by quinine hydrochloride. Quinine sulphate, atropine sulphate, cocaine hydrochloride and morphine hydrochloride showed no coagulating properties when tested with Irish moss decoction.—Pharm. Weekblad, 1920, v. 57, p. 678.

Dixon, W. E., et al.: A discussion of quinine and related alkaloids from the standpoint of their pharmacology and therapeutics.—Brit. M. J., 1920, v. 2, No. 3108, p. 113–121.

Neuschlosz, S. M.: A report of researches to determine quinine tolerance in mammals. Prolonged parenteral treatment was found to cause a true tolerance manifested by an increased capacity of the body to destroy the alkaloid, but no such tolerance was observed in the case of oral administration.—Arch. ges. Physiol. 1920, v. 184, p. 190–210.

Clerc, A., and Pezzi, C.: A report of researches on the antagonism of adrenaline and quinine.—J. physiol. et path. gén. 1920, v. 18, p. 1174–1181.

Pitina, A.: A discussion of the prophylactic action of quinine in malaria.—Anali di Clinica Medica, 1919, Oct., through New York M. J. 1920, v. 111, p. 171.

Brahmachari, U. N.: A preliminary report on the minimum curative dose of quinine in the treatment of malarial fever by the intravenous method.—Indian Med. Gazette, 1920, v. 55, No. 10, p. 366–370.

Civalleri, I.: Notes on idiosyncrasies provoked by certain medicaments, especially quinine.—Riv. crit. clin. med. 1918, v. 19, p. 409-421, through Chem. Abstr. 1920, v. 14, p. 3107.

Kirkpatrick, H.: A case of amblyopia following the administration of quinine is reported.—Zentralbl. Biochem. u. Biophys. 1918, v. 19, p. 382, through Chem. Abstr. 1920, v. 14, p. 3460. See also W. E. Shahan, ibid. p. 382.

Anon.: A report of a fatal case of poisoning following the taking of one-quarter of an ounce of quinine sulphate.—Chem. & Drug. 1920, v. 93, p. 918.

QUININÆ BISULPHAS.

Schammelhout, A.: A tentative monograph on quinine bisulphate proposed for admission to the Belgian National Formulary is presented.—J. pharm. Belg. 1920, v. 2, p. 988.

QUININÆ GLYCEROPHOSPHAS, N. F.

Suto, K.: One lot of quinine glycerophosphate examined yielded 2.13 per cent of ash. The N. F. requires the absence of ash.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

QUININÆ HYDROCHLORIDUM.

Schammelhout, A.: A tentative monograph on quinine hydrochloride proposed for admission to the Belgian National Formulary is given.—J. pharm. Belg. 1920, v. 2, p. 1005.

Keulemans: Attention is called to the incompatibility of quinine hydrochloride with decoctions of carrageen. Precipitation can be avoided by substituting quinine sulphate for the hydrochloride.—Pharm. Weekblad, 1920, v. 57, p. 678.

QUININÆ SULPHAS.

van Leersum, P.: A historical review of the preparation of quinine sulphate in Java and in British India.—Algem. Landbouwweekbl. v. Nederl. Ind. 1920, No. 46, through Chem. & Drug. 1920, v. 93, p. 1213–1214.

Scheringa, K.: A description of a method for the determination of quinine sulphate in quinine pills.—Pharm. Weekblad, 1920, v. 57, p. 422.

RENNINUM, N. F.

Gratz, O.: A review of the literature dealing with the theory and practice of preparing rennin, with a statement of the more salient factors which govern a valuable enzymic product.—Molkerei Ztg. 1919, v. 29, p. 273–279, through Chem. Abstr. 1920, v. 14, p. 987.

Konig, A.: A report of studies to determine the influence of temperature on enzymes, especially rennin and pepsin. On account of the differences observed in their reactions to rise in temperatures, rennin and pepsin are considered as two separate enzymes.—Biochem. Ztschr. 1920, v. 110, p. 266–286.

RESINA.

Tschirch, A.: A report of studies on the natural and synthetic resins.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 485–490, 503–506.

Knecht and Hibbert: A report of studies to determine the composition of colophony, with special reference to pimaric acid.—Chem. Umschau, 1920, v. 27, p. 17.

Greger, J.: The examination of 39 resins by means of the Zeiss crystal refractometer is reported. The observed refractive indices determined with sodium light at 18° C. were found to lie between 1.525 and 1.670.—Chem. Umschau, 1920, v. 27, p. 20.

Lexow, Thor: A critical study of Walker's method for the determination of resin in soaps.—Tidsskrift for Kemi, 1920, v. 17, p. 120, through Chem.-Ztg. 1921, v. 45, Chem.-Techn. Übers. p. 51.

RESINA JALAPÆ.

Dohme, A. R. L.: The test for the solubility of resin of jalap in ether and chloroform should be revised. The details of the present method are not sufficiently clear.—J. Am. Pharm. Assoc. 1920, v. 9, p. 410.

RESINA PODOPHYLLI.

Gane, E. H.: It is suggested that a method of assay for resin of podophyllum be included in the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Linde, O.: It is suggested that a method for the determination of podophyllotoxin be introduced into the Ph. Germ. and that a minimum standard for the podophyllotoxin content be prescribed.—Apoth.-Ztg. 1920, v. 52, p. 465.

RESINA SCAMMONIÆ.

American Drug Manufacturers' Association: It is recommended that the U. S. P. revision committee recognize Mexican scammony as well as Levant scammony, and that in the U. S. P. formula, calling for scammony resin, the use of Mexican scammony be permitted as well.—J. Am. Pharm. Assoc. 1920, v. 9, p. 294.

Ewe, Geo. E.: No scammony resin of U. S. P. quality with respect to ether solubility has been on the market for years, but during the past two years the quality in this respect has improved, so that now it is possible to obtain scammony resin almost up to the U. S. P. requirement. It is recommended that the requirement of 95 per cent ether solubility be reduced to 85 per cent in order to make the standard more practical.—J. Am. Pharm. Assoc. 1920, v. 9, p. 410.

RESORCINOL.

Blair, Thomas S.: It is suggested that resorcin extracted from vegetable resins be admitted to the U. S. P., and that a definition for dosage be given. It is also suggested that the present official resorcinol made synthetically be retained, but that no internal dosage be given for it. Synthetic resorcin is toxic, producing convulsions. It is very useful externally but it is believed to be unsuitable for internal administration. The natural resorcin is of established value internally but is almost out of trade, which is unfortunate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 410.

Phillips, Max, and Gibbs, H. D.: A report of experiments dealing with the preparation of resorcinol by the fusion of sodium benzene m-disulfonate with sodium hydroxide.—J. Ind. & Eng. Chem. 1920, v. 12, p. 857–860.

Anon.: According to the new supplement to the Ph. Fr., the melting point requirement for resorcin has been changed from 119° to 110°–111° C.—Chem. & Drug. 1920, v. 92, p. 456.

Fuchs, W., and Elsner, B.: A note on the tautomerism of resorcinol.—Ber. deutsch. chem. Gesellsch. 1920, v. 53, p. 886.

Anon.: A note calls attention to the incompatibility of euquinine with resorcinol when dispensed in powders. The mixture becomes dark in color and resinous in texture.—Pharm. Zentralh. 1920, v. 61, p. 34.

RHEUM.

Rusby, H. H.: The naming of the "variety *Tanguticum*" of *Rheum palmatum* is superfluous.—Am. Druggist, 1920, v. 68, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 242.

Anon.: Statistics are given on the source of supply and on the importation of rhubarb for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 43–44.

Rusby, H. H.: It is extremely doubtful if we do well in assigning rhubarb to "the rhizome and roots." The upper part of the underground structure, while a distinct crown, can scarcely be regarded as a rhizome.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Grant, E. H.: A new test for rhubarb is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 764.

Daels, Félix: The method described by the author for the determination of the anthraquinones in purgative drugs gives higher results than are obtained by other methods in use. These exact analytical studies, as well as those on rheopurgarine and cathartic acid, anthraquinone complexes, show that it is not only the hydroxymethylanthraquinones that produce the purgative effect, but that other substances must be taken into account with which these form complexes, the structure of which has not yet been determined.—Bull. acad. roy. med. Belg., 1920, v. 30, p. 129–140, through Chem-Abstr. 1920, v. 14, p. 2051.

Viehoever, Arno: The adulteration of rhubarb (*Rheum officinale*) with *Rheum rhaponticum* is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

ROSA GALLICA.

DeG. Peacock, Josiah C., and Bertha L.: A report of studies on the tannin of red rose.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 162–169.

RUMEX, N. F.

Lampa, Robert R.: The average ash content of yellow dock root found on the market is 18 per cent. The N. F. allows not over 10 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 27; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

SABAL.

Stone, W. H.: The fresh, ripe saw palmetto berries preserved by U. S. P. alcohol are suggested to be made official in place of the partially dried, ripe fruit. These berries are used for making the fluidextract, and fresh berries produce a fluidextract which is superior to that made from the dry berries. The fresh berries can be readily preserved by alcohol, which is later used in making the fluidextract.—J. Am. Pharm. Assoc. 1920, v. 9, p. 410.

SACCHARUM.

Bourquelot, Em., and Bridel, M.: A report of researches dealing with the production of sucrose from gentianose by a biochemical method.—J. pharm. et chim. 1920, v. 22, p. 241–248.

Haworth, Walter N.: Researches on the constitution of the dissaccharides. IV. Structure of the fructose residue in sucrose.—J. Chem. Soc. Lond. 1920, v. 117, p. 199–208.

Schoorl, N.: Data relative to the alteration in volume during the inversion of sucrose are given.—Ztschr. Unters. Nahr.-u. Genussm. 1920, v. 39, p. 113–121, through J. Soc. Chem. Ind. 1920, v. 39, p. 554A.

Beyersdorfer, P.: A criticism of Bruhn's method for the determination of invert sugar in the presence of sucrose.—Z. Ver. Deutsch. Zuckerind. 1920, p. 259–271, through J. Soc. Chem. Ind. 1920, v. 39, p. 554A.

Dixon, H. H., and Mason, T. G.: A method for the determination of sucrose in small volumes of liquid is based on the fact that after inversion the depression of the freezing point of a sucrose solution is approximately doubled.—Scient. Proc. Roy. Dublin Soc. 1920, v. 16, No. 1, p. 1–8, through J. Soc. Chem. Ind. 1920, v. 39, p. 201A.

SACCHARUM LACTIS.

Gillis, J.: A report of new researches on milk sugar. A study of the solubility curve between 89 and 200°.—Rev. Trav. chim. Pays-Bas. 1920, v. 29, p. 88–125, through Bull. soc. chem. France, 1920, v. 27, p. 799.

Saillard, E.: An investigation of the action of acids and alkalies on lactose. Data are also presented showing the solubility of lactose in water at temperatures between 21.5 and 65° C.—Chim. et Indust. 1919, v. 2, p. 1035–1036, through Chem. Abstr. 1920, v. 14, p. 673.

Adriano, Felipe T.: Comparative experiments in the determination of lactose by means of the optical method, the gravimetric method, and the volumetric method, using alkaline potassium permanganate, show that the last is more rapid and accurate than the other two.—Philippine J. Sc. 1920, v. 17, p. 213–220.

SAL VICHYANUM FACTITIUM, N. F.

Martin, Henri: Extracts of historical importance from the publications of Antonin Mallat and Maurice Mallat on the salts and tablets of Vichy.—J. pharm. et chim. 1920, v. 21, p. 373–380.

SANGUINARIA.

Éwe, George E.: An assay for sanguinaria is proposed. The method and standard are described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 40.

Gadamer, J.: A report of researches on the chelidonium alkaloids. II. Estimation of the methylenedioxy group in alkaloids.—Arch. Pharm. 1920, v. 258, p. 148–167.

Bauer, K. H., and Redinger, K. T.: A report of studies on the isolation of chelerythrine from bloodroot and on the properties of some of its salts and deriatives.—Arch. Pharm. 1920, v. 258, p. 167–170.

Éwe, George E.: Seven samples of sanguinaria examined were above the U. S. P. standard of 2.5 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

SANTALUM ALBUM, N. F.

Rao, B. I. S.: An account of the artificial raising of santal in the Akola Division of the Berar Circle, Central Provinces, India.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 66–68.

Wende, E.: A note on the estimation of santalol in sandalwood.—Apoth.-Ztg. 1914, v. 29, p. 541, through Sc. & Ind. Bull. 1920, series 3, No. 10, p. 28.

SANTALUM RUBRUM.

Rusby, H. H.: Red saunders should be referred to the family *Papilionaceæ*.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

SANTONINUM.

Rusby, H. H.: It has recently been proposed by Farwell that the plant yielding santonin should be called "*Artemisia maritima pauciflora*," as it was in a previous edition of our Pharmacopœia, but the proposition cannot be regarded as correct. The differences between these two forms are certainly of species rank.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Anon.: Statistics are given on the sources of supply and on the importation of santonin for the years 1909–1914.—Tariff Commission Series, 1920, No. 19, p. 51–52.

Anon.: Notes on the production of santonin in Russia. A table is given showing the exports to Germany and Great Britain for the years 1910–1916.—Com. Rep. 1920, No. 209, p. 1113.

Kariyone, Tatsuo, and Kimura, Yushiro: A description of a volumetric method for the determination of santonin in wormseed.—J. Pharm. Soc. Japan, 1920, No. 465, Nov. p. 927.

Schumacher, R.: The following may be used as santonin substitutes: Naphthalin, tansy, oil of tansy, pomegranate, kousso, kamala, areca, aspidium, oil of chenopodium, and particularly fresh black alder tree bark, solution of potassium arsenite, pyramidon, antipyrine, and phenacetin.—Pharm. Ztg. 1920, v. 65, p. 330.

SAPO.

Kyser, E. V.: Arguments are presented to show that Castile soap should be deleted from the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1079–1086.

Kyser, E. V.: It is recommended that a milled soap, made by the settled or grained process, consisting of 80 per cent tallow and 20 per cent coconut oil in conjunction with sodium hydroxide as the saponifying agent, be introduced into the U. S. P. to replace Castile soap.—Am. Perf. 1920, v. 15, p. 75; J. Am. Pharm. Assoc. 1920, v. 9, p. 496.

Lockwood, Theodore R.: A reply to a suggestion that other than olive oil be used in making official Castile soap. It has been suggested that the official soap be a milled soap made by a settled or grained process. This appears to be an attempt to exclude foreign-made, pure Castile soap. Such limitations are obviously unscientific, unnecessary, and unfair.—Drug Circ. 1920, v. 64, p. 91 and 104.

Schuttig, C. L.: A method for the determination of free alkali in soaps is described.—Chem.-Analyst, 1920, v. 29, p. 23–24.

Jungkunz, R.: Notes on the use of the Reichert-Meissl and Polenske numbers in soap analysis.—Siefensieder.-Ztg. 1920, v. 47, p. 163–164, 189–190, through Chem. Abstr. 1920, v. 14, p. 1904.

Wolff, G.: A discussion of medicinal soaps from the standpoint of physiological and therapeutic action.—Deutsch. Parfum.-Ztg. 1919, v. 5, p. 217, through Am. Perf. 1920, v. 15, p. 115–116.

SAPO MOLLIS.

Lampa, Robert R.: A product used for generations under the name of green soap was made from linseed oil. Cottonseed oil soap is no improvement over this preparation. The old-fashioned green soap is preferred by the practitioner and pharmacist because of a greater uniformity in appearance and consistency.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

Hommell, P. E.: It is believed that the suggestion to restore to the U. S. P. green soap made from linseed oil is a good one, as the soap prepared with cottonseed oil is inferior.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

Gray, William: Soft soap should be made from corn oil because all large soap makers use this product.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1086.

Kyser, E. V.: It is stated that a soft soap, which will meet every requirement of the Pharmacopœia, can be successfully made from the oils of cotton seed, corn, soy bean, peanut, and various other vegetable oils, and with the substitution of soda for potash. A change in the *modus operandi* of the U. S. P. for the preparation of the soap is also described.—Am. Perf. 1920, v. 15, p. 76; J. Am. Pharm. Assoc. 1920, v. 9, p. 496.

Mueller, Bertha: The following simplified technic for making soft soap is recommended: Dissolve the caustic potash in an equal weight of water in a container which will hold the heat developed during the process of solution. When solution has taken place, add the required amount of oil, followed by the alcohol. Stir with occasional intermittance until saponification has taken place, then add the remainder of the water with occasional stirring until it is absorbed and a clear soap results.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Winberg, Eric: Formulæ are given for the preparation of soft soap and medicated soap.—Farm. Revy, 1920, v. 19, p. 529, through Apoth.-Ztg. 1920, v. 35, p. 321.

Éwe, George E.: The soft soap on the market is usually neutral or possesses a negligible acidity. It is therefore recommended that the U. S. P. directions for conducting the quantitative test be changed to conform with this condition.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Funck, Erich: A note on the improvement of the Ph. Germ. method for the determination of the fatty acids in potassium soap.—Apoth.-Ztg. 1920, v. 35, p. 61.

SAPONES.

Gane, E. H.: It is suggested that a liquid soap for surgical use be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

SARSAPARILLA.

Rusby, H. H.: Sarsaparilla should be referred to the family *Smilaceæ*.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Anon.: Statistics are given on the sources of supply and on the importation of sarsaparilla for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 28.

Roberts, J. G.: One shipment of Mexican sarsaparilla examined was rejected as it was of very undesirable quality, containing considerable dead material and a large amount of the knotty crown with the attached overground stem.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

Éwe, George E.: Two lots of sarsaparilla examined still retained the woody, knotty crown and portions of the stems and were, therefore, rejected.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 116.

SASSAFRAS.

Hommell, P. E.: Because sassafras is a constituent of the compound fluidextract of sarsaparilla, it is believed that it should remain in the U. S. P.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Éwe, George E.: One lot of sassafras bark examined showed that the outer cork layers had not been removed.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

SASSAFRAS MEDULLA, N. F.

Ballard, C. W.: Notes on the identification of sassafras pith by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

SCAMMONIÆ RADIX.

American Drug Manufacturers' Association: It is recommended that Mexican scammony be admitted to the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Snyder, J. P.: For several years the use of Mexican scammony has been practiced generally throughout the pharmaceutical industry and there is sufficient clinical data to show that it is equal to the official variety. Steps should be taken to admit Mexican scammony to the U. S. P.—Proc. New York Pharm. Assoc. 1920, p. 207.

Gane, E. H.: It is suggested that Mexican scammony be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hilton, S. L.: The definition for scammony should be so worded as to admit Mexican scammony. The greater part of the scammony now on the market comes from Mexico. True scammony is practically unobtainable, and the Mexican scammony seems to answer every purpose and has the same medicinal properties.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Grant, E. H.: A new test for scammony is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 763.

Eli Lilly & Company: One bag of a shipment of Mexican scammony examined was adulterated.—Proc. N. W. D. A. 1920, p. 359.

SCILLA.

Rusby, H. H.: Squill should be referred to the family *Alliaceæ*.—Am. Druggist, 1920, v. 62, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Greenish, Henry G.: An illustrated account of the collection and preparation of squill.—Pharm. J. 1920, v. 105, p. 284–285.

Committee on U. S. P. Philadephia Coll. Pharm.: Recommendations are made for changes and improvements in the physiologic assay of squill.—Am. J. Pharm. 1920, v. 92, p. 647.

White, Paul D., et al.: A report of some clinical observations on the digitalis-like action of squill.—J. Am. M. Assoc. 1920, v. 75, p. 971–975.

SCOPARIUS, N. F.

Éwe, George E.: One lot of scoparius examined contained 48 per cent of very thick stems, whereas stems not thicker than 3 mm. are desirable.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

SCUTELLARIA, N. F.

Riley, W. M.: One lot of scutellaria examined had lost most of its chlorophyll and was quite brown, due to having been collected too late in the season.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

SENEGA.

Steiger, E.: An exhaustive study of the morphology of *Polygala senega*, with numerous illustrations of the histological structures and photographs of the plant and drug.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 43–116.

Shimizu, Y.: The root of *Platycodon grandiflorum* is found to contain a readily soluble, relatively nontoxic saponin and to be a satisfactory substitute for senega in the treatment of coughs.—Japanese Med. Lit. 1920, v. 5, p. 39.

SENNA.

Rusby, H. H.: Senna should be referred to the family *Cæsalpinaceæ*.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Anon.: Statistics are given on the sources of supply and on the importation of senna leaves for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 42.

Grant, E. H.: A new test for the identification of senna is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 764.

Linde, O.: It is recommended that the new edition of the Ph. Germ. give a test for oxymethyl-anthraquinones under senna.—Apoth.-Ztg. 1920, v. 35, p. 452.

Gilg, Ernst and Schuster, Julius: A note on the occurrence and detection of adulteration of senna leaves with "Palte-senna" (*Cas-*

sia auriculata L.).—Angew. Botanik, v. 2, p. 1–8, through Chem. Zentralbl. 1920, v. 91, part IV, p. 423.

Vámossy: It is stated that the leaves of *Cassia auriculata* L. can be distinguished from those of *C. acutifolio*, *C. angustifolia* or *C. obovata*, by the deep carmine red color which they impart to concentrated sulphuric acid.—Pharm. Monatsh. v. 1, p. 77; Chem. Zentralbl. 1920, v. 91, part IV, p. 596.

Viehoever, Arno: The adulteration of Tinnevelly senna (*Cassia angustifolia*) with up to 20 per cent of *Tephrosia apollinea*, which contains a poisonous principle, is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

Fiala, M.: A contribution to the anatomy of *Colutea arborescens* L. The leaves of this plant are known as German or false senna and are sometimes used to adulterate genuine senna.—Pharm. Post, 1919, Nos. 69, 70, and 76, through Pharm. Zentralh. 1920, v. 61, p. 47–48.

SERPENTARIA.

Hommell, P. E.: Serpentaria is still popular among the laity as a tonic to promote appetite and digestion. The profession uses it occasionally in the form of the compound tincture of cinchona.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

SERUM ANTIDIPHTHERICUM.

Homer, Annie: A report of some studies on the heat inactivation of diphtheria antitoxin.—Biochem. J. 1920, v. 14, p. 565–569.

Rappel, W. G.: A report on the behavior of albumins and antitoxins toward the electric current and on the isolation of pure antitoxic albumin from diphtheric serum by the electro-osmotic method.—Ber. deutsch. pharm. Gesellsch. 1920, v. 30, p. 314–328.

Weille-Hallé: The intramuscular route is recommended as a regular method for the administration of antitoxin in dipththeria.—Bull. et mémoires de la Soc. Méd. des hopitaux de Paris, 1920, Jan. 29, through New York M. J. 1920, v. 112, p. 783.

SERUM ANTITETANICUM.

Gurd, Fraser B. and Emrys-Roberts, E.: A report of a case of fatal anaphylaxis following the prophylactic administration of antitetanic serum.—Lancet (The), London, 1920, v. 1, p. 763–764.

SINAPIS ALBA.

Viehoever, Arno: The weight of 500 cc. of white mustard is found to be 384 grams; Chinese colza (adulterant of white mustard), 352 grams.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 155.

Lampa, Robert R.: The Pharmacopœia states that white mustard does not yield allyl isothiocyanate upon distillation with steam. This is evidently an erroneous statement, as the bulk of white mustard yields synthetic oil of mustard upon distillation with steam. A white mustard corresponding with the Pharmacopœial requirements in this particular would be practically inert.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

Viehoever, Arno: A description of a method for the determination of volatile oil in mustard seed and mustard substitutes, with special reference to the effect of maceration with alcohol on the magnitude of the results obtained.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 149–151.

SINAPIS NIGRA.

Rusby, H. H.: The description for black mustard should read: The ripe seeds of *Sinapis nigra* L., etc.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Viehoever, Arno: The weight of 500 cubic centimeters of black mustard (normal) is found to be 370 grams; black mustard (rain damaged) 345 grams; charlock (adulterant of black mustard) 350 grams.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 155.

Cauda: The determination of the essential oil content of mustard seeds by oxidation with bromine and subsequent weighing of sulphates showed that black mustard seeds are richer in essential oil than white; those of northern localities richer than those of southern; and those of small size richer than those of large diameter.—Staz. sper. agrar. ital., 1919, v. 52, p. 122, through Chem. Abstr. 1920, v. 14, p. 3498.

Raquet, D.: Comments on the determination of allyl isothiocyanate in black mustard, with special reference to the supplement to the 1908 Codex.—J. pharm. et chim. 1920, v. 22, p. 92–93.

Späth, Ernst: A report of experiments on the synthesis of "sinapine," an alkaloid-like substance found in black mustard seed.—Monatsh. Chem. 1920, v. 41, p. 271–285.

SODII BENZOAS.

Éwe, Geo. E.: The U. S. P. sanctions the use of synthetic benzoic acid and requires it to be tested for chlorine, a possible impurity. Synthetic benzoic acid can be and probably is used to manufacture sodium benzoate, yet the U. S. P. evidently by oversight neglects to direct the application of a test for chlorine to sodium benzoate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Anon.: According to the new supplement to the Ph. Fr., the anhydrous salt (instead of the salt with one molecule of water) of sodium benzoate is now official.—Chem. & Drug. 1920, v. 92, p. 456.

Mayrhofer, Adolf: Microchemical methods for the testing of sodium benzoate are described.—Ztschr. allgem. österr. Apoth.-Ver., 1920, v. 58, p. 247.

SODII BICARBONAS.

Ewe, Geo. E.: The U. S. P. description of taste does not fit all lots of sodium bicarbonate. The U. S. P. describes the taste as "cooling, mildly alkaline." Some lots which answer all U. S. P. requirements have a distinctly saline, cooling, mildly alkaline taste. These particular lots are always almost perfectly free from normal carbonate as shown by the fact that a saturated aqueous solution gives no color or practically no color with a few drops of phenolphthalein T. S.—J. Am. Pharm. Assoc. 1920, v. 9, p. 411.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium bicarbonate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 35–36.

SODII BORAS.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium borate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 30.

Gunn, J. W. C.: Borax is found to have a direct stimulative action on the uterus in concentrations corresponding to toxic doses. This action is largely due to alkalinity, as neutral solutions have less effect.—J. Pharmacol. & Exper. Therap. 1920, v. 16, p. 135–139.

SODII BROMIDUM.

Lyons, A. B.: The rubric requirement of the U. S. P. for sodium bromide is "not less than 98.5 per cent NaBr." The assay is made by the method of Volhard, but no account is taken of the possibility that NaCl may be present, so that the salt may contain a great deal less than 98.5 per cent of NaBr.—Drug. Circ. 1920, v. 64, p. 86.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium bromide are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 35.

Zimmermann, W.: A sample of sodium bromide examined contained alkali carbonate.—Apoth.-Ztg. 1918, v. 34, p. 13, through Pharm. Zentralh. 1920, v. 61, p. 45.

SODII CACODYLAS.

Anon.: According to the new supplement to the Ph. Fr., a salt with 2.5 molecules of water, containing 75 to 78 per cent of anhydrous sodium cacodylate, replaces the anhydrous salt.—Chem. & Drug. 1920, v. 92, p. 456.

Éwe, George E.: All of the many lots of sodium cacodylate examined answered the U. S. P. requirements, but a number of them caused severe pain when solutions were used hypodermically.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

Demo, A.: A note on the incompatibility of strychnine salts with glycerophosphates, cacodylates, and sodium methylarsonate. Precipitation of the alkaloid may be avoided by rendering the alkaloidal solution neutral to phenolphthalein before adding the glycerophosphate, et cetera.—Giorn. farm. chim. 1920, v. 63, p. 113–118.

Hendrix: The precipitate which forms in ampoules containing a solution of strychnine sulphate and sodium cacodylate is identified as strychnine cacodylate. The formation of the precipitate is caused by the alkalinity of the sodium cacodylate.—VI. Geneesk. Tijdschr., 1920, p. 5, through J. pharm. Belg. 1920, v. 2, p. 1.

Ravant, P.: Notes on the importance of internal medication in dermatology with special reference to the administration of sodium cacodylate in large doses.—Presse Médicale, 1920, v. 28, p. 73–75.

SODII CARBONAS MONOHYDRATUS.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium carbonate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 35.

SODII CHLORIDUM.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium chloride are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 35.

Utz: Analytical data showing the quantities of impurities in two samples of salt are reported.—Bayer Molk.-Ztg., 1920, v. 46, p. 189, through Pharm. Zentralh. 1920, v. 61, p. 649–650.

SODII CITRAS.

Gloor, F.: One lot of sodium citrate examined contained 72.92 per cent of anhydrous sodium citrate, whereas the U. S. P. requires 87.25 per cent. This lot contained 27.14 per cent of water of crystallization.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 117.

SODII GLYCEROPHOSPHAS.

Éwe, Geo. E.: The U. S. P. standard for sodium glycerophosphate of not less than 68 per cent of anhydrous $Na_2C_3H_7PO_6$ is too low. A standard of not less than 95 per cent is suggested. Twenty-eight samples examined during the past four years ranged from 69.92 per cent to 101.5 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Lizius, J. L.: A criticism of the U. S. P. test for inorganic phosphate in the glycerophosphates. A more satisfactory test is described.—Pharm. J. 1920, v. 105, p. 100–101; Chem. & Drug. 1920, v. 93, p. 1066.

Demo, A.: A note on the incompatibility of strychnine salts with glycerophosphates, cacodylates, and sodium methylarsonate. Precipitation of the alkaloid may be avoided by rendering the alkaloidal solution neutral to phenolphthalein before adding the glycerophosphate et cetera.—Giorn. farm. chim. 1920, v. 69, p. 113–118.

Leclère, A.: The precipitation of strychnine in mixtures of strychnine salts and alkali glycerophosphates can be prevented by the use of cane sugar, which has a distinct solvent action on the alkaloid. A formula for the preparation of hypodermic solutions containing these substances is given.—J. pharm. et chim. 1920, v. 21, p. 183.

SODII HYDROXIDUM.

Mayrhofer, Adolf: Microchemical methods for demonstrating the identity and purity of sodium hydroxide are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 36.

Thum, John K.: There should be a requirement that potassium and sodium hydroxides be free of chlorides. Both are largely used in making liquid soap and it is well known that chlorides precipitate soap. The merest traces interfere with the making of a perfectly clear liquid soap.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

SODII IODIDUM.

Mayrhofer, Adolf: Microchemical tests for the identity and purity of sodium iodide are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 41–42.

SODII NITRIS.

Matignon, C., and Marchal, G.: An experimental investigation of some of the properties of sodium nitrite, namely, melting point, molecular heat of solution, heat of neutralization, heat of formation, behavior toward indicators, and oxidizability.—Compt. rend. acad. sc. 1920, v. 170, p. 232–234.

Gangloff, W. C.: The author confirms the findings of E. Divers, namely, that the melting point of sodium nitrite is 271° C. instead of 213° C. as given in several handbooks.—J. Ind. & Eng. Chem. 1920, v. 12, p. 613.

SODII PERBORAS.

Trickett, H.: An investigation of methods for the determination of available oxygen in sodium perborate and perborate powders. A gas volumetric method in which calcium hypochlorite is used is recommended as being the most satisfactory.—Analyst (The). London, 1920, v. 45, p. 88–91.

Jungkunz. R.: Results obtained in the determination of the active oxygen. loss on ignition, alkalinity of residue, and boric acid on 14 samples of commercial sodium perborate are recorded.—Seifensieder-Ztg. 1919. v. 46, p. 813–816, through Chem. Abstr. 1920, v. 14, p. 1737.

SODII PHOSPHAS.

Mayrhofer, Adolf: Descriptions are given of microchemical tests for the identity and purity of sodium phosphate. Illustrated.—Ztschr. allgem. österr. Apoth.-Ver. 1920. v. 58, p. 42.

SODII SALICYLAS.

Anon.: According to the new supplement to the Ph. Fr., the anhydrous salt of sodium salicyclate is now official instead of the salt with 1 molecule of water.—Chem. & Drug. 1920, v. 92, p. 456.

Jones. H. W.: A volumetric method for the assay of sodium salicylate is based on the fact that the acid reacts with bromine to form a tribromphenol.—J. Am. Pharm. Assoc. 1920, v. 9, p. 878.

Linton. Arthur W.: A discussion of the causes for the darkening of sodium salicylate solutions dispensed with sodium bicarbonate.—Pacific Drug Rev. 1920, v. 32, No. 1, p. 30.

Roberts. J. G.: Two shipments of sodium salicylate examined were rejected. one because it had a decided pink color, and the other on account of a pronounced phenol odor.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

SODII SULPHAS.

Mayrhofer. Adolf: Microchemical tests for the identification and purity of sodium sulphate are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 42.

Anon.: A report of a fatal case of poisoning due to an overdose of sodium sulphate.—Chem. & Drug. 1920. v. 92. No. 9. p. 70.

SODII THIOSULPHAS.

Dubosc. André: The hyposulphites. A general review comprising a historical sketch of the discovery of hyposulphites, various theories proposed to explain their constitution, properties of hyposulphurous acid and its salts, and the methods of analysis.—Rev. prod. chim. 1920. v. 23, p. 303–310, 370–374, 433–436, 501–502. 557–562, 629–632, 661–665, 725–727; 1921, v. 24, p. 11–13.

Formhals, R.: Methods for the determination of hyposulphites in common use are either inaccurate or unsuited for technical purposes. A method is proposed which makes use of the reaction:

$2K_3Fe(CN)_6 + Na_2S_2O_4.H_2O + H_2O = 2K_3NaFe(CN)_6 + 2H_2SO_3$.—Chem.-Ztg. 1920, v. 44, p. 869.

Labat: Attention is directed to the possibility of an error in the determination of sulphate in sodium thiosulphate by the official French method due to the fact that some barium thiosulphate is formed if an excess of barium chloride is used in the test.—Répert. pharm. 1920, v. 32, p. 40.

Bruhns, G.: A method for the evaluation of hyposulphite solutions is described.—Centr. Zuckerind. 1920, v. 28, p. 445, through Chem. Abstr. 1920, v. 14, p. 3036.

SPARTEINÆ SULPHAS.

Rusby, H. H.: The plant yielding sparteine sulphate should be referred to the family Papilionaceæ.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Grant, E. H.: A method for the identification of sparteine consists in adding a small amount of bromine water to the alkaloidal residue obtained upon evaporation, evaporating to dryness and inverting over concentrated ammonia water. The appearance of a pink color in the material contained in the inverted dish indicates sparteine.—J. Am. Pharm. Assoc. 1920, v. 9, p. 704.

Anon.: A note on the physiological action and use of sparteine sulphate.—Therap. Halbmonatsh., v. 34, p. 31, through Chem. Zentralbl. 1920, v. 9, part 1, p. 303.

SPIGELIA.

Rusby, H. H.: In view of the growing scarcity and increasing price of spigelia, the suggestion previously made to the Revision Committee, that *Spigelia anthelmia* and other abundant tropical American species of this genus should be studied in comparison with *S. Marylandica* to determine their relative activity, is renewed. The author is inclined to think that they will be found even more active than our own species.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Eli Lilly & Company: One shipment of pinkroot examined was slightly adulterated with *Polemonium reptans*. One sample consisted to some extent of an adulterant, probably ruellia.—Proc. N. W. D. A. 1920, v. 359.

Ewe, George E.: One lot of spigelia examined contained an excessive amount of stems.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

Roberts, J. G.: One lot of spigelia examined yielded 28 per cent of ash, whereas the U. S. P. permits not more than 10 per cent. It was, therefore, rejected. Another sample was composed entirely of ruellia.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

SPIRITUS.

Gane, E. H.: It is suggested that whisky and brandy be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

SPIRITUS ÆTHERIS COMPOSITUS, N. F.

Lampa, Robert R.: The ethereal oil required in the preparation of the compound spirit of ether is practically unobtainable. It is therefore suggested that the ethereal oil be omitted and that the name of the preparation be changed to spirit of ether with the synonym. Hoffman's Anodyne or Hoffman's Drops.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

Lascoff, J. L.: Compound spirit of ether should be dropped from the N. F. because it is impossible to obtain ethereal oil at the present time. This preparation is disagreeable in taste and is rarely ever prescribed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598; Drug. Circ. 1920, v. 64, p. 170.

SPIRITUS ÆTHERIS NITROSI.

Committee on U. S. P. Philadelphia Coll. Pharm.: The manufacturing process of the U. S. P. for spirit of nitrous ether should be omitted in the next U. S. P. There should be included a standard for ethyl nitrite as now sold. The spirit of nitrous ether of the U. S. P. should then be directed to be made from definite weights of this standard ethyl nitrite and of alcohol.—Am. J. Pharm. 1920, v. 92, p. 560.

Cook, E. F., and Nichols, A. B.: An improved U. S. P. method for preparing ethyl nitrite is described.—Am. J. Pharm. 1920, v. 92, p. 801–802.

Pitt, Charles H.: A description is given of a modified U. S. P. method for preparing ethyl nitrite. The principal change is in the apparatus employed.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 297–298.

Sayre, L. E.: Spirit of nitrous ether should be stabilized—made more permanent. Over 30 per cent of the spirit sent to the Kansas State Laboratory is below standard.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Frary, Guy G.: Of 8 samples of sweet spirit of nitre examined, 4 were not of U. S. P. quality.—Rep. South Dakota F. & D. Com. 1920, p. 52.

Woods, Chas. D.: Two samples of sweet spirit of nitre examined were found to be slightly below the U. S. P. strength.—Off. Insp. No. 95, Maine Agric. Exper. Sta. 1920, p. 11.

Linton, Arthur W.: A note calls attention to the incompatibility of spirit of nitrous ether with the tannic acid contained in digitalis and the citric acid contained in syrup of lemon.—Pacific Drug Rev. 1920, v. 32, No. 11, p. 32.

SPIRITUS AMMONIÆ AROMATICUS.

Abel Scholar: The preparation of aromatic spirit of ammonia by the Ph. Brit. method is commented on.—Chem. & Drug. 1920, v. 93, p. 1165.

Dohme, A. R. L.: The total alkalinity of aromatic spirit of ammonia should be determined, on account of the loss in ammonia which is liable to occur in the manufacture of the product.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Ehman, Jos. W.: A number of suggestions concerning standards for aromatic spirit of ammonia are made.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 259–261.

Gane, E. H.: It is suggested that an assay method for aromatic spirit of ammonia be included in the next U. S. P.—Am. Druggist. 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366-370.

SPIRITUS CAMPHORÆ.

Rusby, H. H.: The spirit of camphor is one-tenth as strong as the drug, but its dose is only five times as large.—Am. Druggist. 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

Lyons, A. B.: A critical review of methods for testing spirit of camphor, with some practical notes on the precipitation and specific gravity methods.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1163-1168.

Utz: A note on the polariscopic method for the determination of camphor in spirit of camphor.—Deutsch. Parfümerieztg. v. 6, p. 85–86, through Chem. Zentralbl. 1920, v. 91, part IV, p. 155–156.

Frary, Guy G.: Twenty-six samples of spirit of camphor examined proved to be up to the standard for quality.—Rep. South Dakota F. & D. Com., 1920, p. 52.

Holt, Thomas: Of 19 samples of spirit of camphor examined, 8 were adulterated.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Woods, Charles D.: Of 42 samples of spirit of camphor examined, 28 were of standard strength, 4 were dangerously above standard, and 5 were adulterated. The remaining 5 varied slightly from the standard.—Off. Insp. Maine Agric. Exper. Sta. 1920, No. 95, p. 2–3.

SPIRITUS CINNAMOMI.

Massera, V.: A note on the Pharmacopœial tests for the spirit of cinnamon, with special reference to that given in the Ph. Ital. III.—Boll. chim.-farm. 1920, v. 59, p. 173.

SPIRITUS GLYCERYLIS NITRATIS.

Gane, E. H.: It is suggested that an assay method for spirit of nitroglycerin be included in the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Richmond, H. D.: A method for the determination of nitroglycerin in commercial solutions of nitroglycerin (Liquor trinitrini, Liquor glonoini) is described.—Analyst (The), London, 1920, v. 45, p. 260–265.

Roberts, J. G.: A shipment of spirit of nitroglycerin, supposedly a 1 per cent solution, upon examination proved to be a 10 per cent solution.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

SPIRITUS JUNIPERI COMPOSITUS.

Wickham, Edward A.: It is suggested that compound spirit of juniper be deleted, inasmuch as the leaders of the medical profession, with but few exceptions, have decreed that alcoholic liquors are not of therapeutic value, and inasmuch as their feelings met with approval at the hands of the last Revision Committee, brandy, whisky, etc., being deleted from the U. S. P., IX, it would seem but logical to delete the above-named product, which is delicately flavored diluted alcohol of about the same alcoholic strength and flavor as "gin."—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Gane, E. H.: It is suggested that compound spirit of juniper be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

SPIRITUS MENTHÆ PIPERITÆ.

Lascoff, J. L.: It is suggested that a simpler means than that prescribed at present be devised for coloring the spirit of peppermint.—Drug. Circ. 1920, v. 64, p. 170.

Gane, E. H.: It is suggested that an assay method for spirit of peppermint be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 24; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Frary, Guy G.: Of 29 samples of essence of peppermint examined 7 were not of U. S. P. quality.—Rep. South Dakota F. & D. Com. 1920, p. 52.

Woods, Charles D.: Of 46 samples of spirit of peppermint examined 24 were of standard strength, 3 were dangerously above standard, 10 were adulterated, and the remaining 9 varied slightly from the standard.—Off. Insp. Maine Agric. Exper. Sta. 1920, No. 95, p. 6–7.

STAPHISAGRIA.

Roberts, J. G.: One sample of stavesacre seed examined yielded 8.93 per cent of total ash and 0.76 per cent acid-insoluble ash.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

STILLINGIA.

Gane, E. H.: It is suggested that stillingia be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

STRAMONIUM.

Rusby, H. H.: The suggestion that the definition of stramonium should include stems not more than 7 mm. in diameter is renewed.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Koch, George P.: It is recommended that primary and secondary stems be officially recognized in conjunction with the leaves of belladonna, stramonium, and hyoscyamus.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Ewe, George E.: The whole dried stramonium plant, either with or without the root, should be made official instead of only the leaves. (See Am. J. Pharm., January, 1919.) The cost of U. S. P. stramonium would be reduced since the harvesting is simplified. A larger supply of stramonium would thereby be rendered available.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Blakeslee, Albert F., et al.: Chromosomal duplication and Mendelian phenomena in datura plants.—Science, 1920, v. 52, p. 388–390.

Sivolsbof, A.: An examination of the product obtained on distilling the stems of *Datura stramonium*. A mixture was obtained distilling between 60 and 81° C. It consisted principally of compounds of the fatty series. The alcohols were principally methyl and ethyl. The aldehydes were acetic and probably formic, propionic, and isobutyl aldehydes.—J. Soc. phys.-chim. russe, v. 47, p. 1561, through Sc. & Ind. Bull. 1920, Series 3, No. 10, p. 132.

Viehoever, Arno: The adulteration of stramonium (*Datura stramonium*) with *Xanthium strumarium* is reported.—J. Assoc. Off. Agric. Chem. 1920, v. 4, p. 154.

Holmes, E. M.: A note on the adulteration of stramonium leaves with the leaves of *Xanthium strumarium* L., *Xanthium macrocarpum* DC, and *Carthamus helenoides*.—Chem. & Drug. 1920, v. 92, p. 200.

Éwe, George E.: Of 6 samples of stramonium leaves examined 5 were above and 1 was below the U. S. P. standard of 0.25 per cent. alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

STRONTII BROMIDUM.

Gane, E. H.: It is suggested that strontium salts be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Strontium bromide, iodide, and salicylate should remain in the U. S. P. If carefully tested for purity and preserved as indicated in the U. S. P., these salts are valuable therapeutic agents.—Proc. New Jersey Pharm. Assoc. 1920, p. 43.

STROPHANTHINUM.

Éwe, Geo. E.: The U. S. P. statement that strophanthin "is very soluble in water" is not consistent with market supplies of otherwise U. S. P. quality. The statement should read "is slowly but completely soluble in water." Three lots which answered all other U. S. P. requirements were not "very soluble in water," since even minute quantities dissolved very slowly, although completely.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413.

Levy, R. L., and Cullen, G. E.: The deterioration of crystalline strophantin in aqueous solution, its relation to hydrogen-ion concentration, and a method for its prevention. It is recommended that the crystalline strophanthin be dissolved in a buffer (0.02 M standard phosphate solution at p_H 7.0), and marketed in hard glass ampoules.—J. Exper. M. 1920, v. 31, p. 267–273.

Pentimalli, F.: A study of the action of strophanthin on the vagus shows that it produces a diminution in the excitability.—Ztschr. Exper. Med. 1920, v. 11, p. 10–15.

Klein, Karel: A study of the antagonism of cocaine and strophanthin.—J. Méd. tchèque, 1919, v. 58, p. 877, through J. physiol. et path. gén. 1920, v. 18, p. 1238.

Cohn, A. E., and Levy, R. L.: A comparison of the action in patients of γ-strophanthin and digitalis. The speed of action of strophanthin is found to be greater than that of digitalis, while the effect of the latter outlasts that of the former.—Proc. Soc. Exper. Biol. & Med. 1920, v. 17, p. 81–82.

Roderburg, Hans: A report on the intravenous use of strophanthin in more than 100 cases of acute, subacute, and chronic forms of heart insufficiency.—Münch. med. Wchnschr. 1920, v. 67, p. 152–155.

STROPHANTHUS.

Anon.: According to the new supplement to the Ph. Fr., the seeds of *Strophanthus kombé* are now admitted, in addition to those of

Strophanthus hispidus, and a description of the kombé variety is given.—Chem. & Drug. 1920, v. 92, p. 456.

Committee on U. S. P. Philadelphia Coll. Pharm.: Recommendations are made for changes and improvements in the physiologic assay of strophanthus.—Am. J. Pharm. 1920, v. 92, p. 647.

Colson, H. C., Jr.: It is suggested that Houghton's 12-hour frog method be substituted for the one now recommended in the U. S. P. IX under digitalis, strophanthus, and squill.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413.

STRYCHNINA.

Anon.: According to the new supplement to the Ph. Fr., the optical rotation requirement for strychnine has been changed from —134° at +20° C. to —31.5° at +25° C.—Chem. & Drug. 1920, v. 92, p. 456.

Demo, A.: A note on the incompatibility of strychnine salts with glycerophosphates, cacodylates and sodium methylarsonate. Precipitation of the alkaloid may be avoided by rendering the alkaloidal solution neutral to phenolphthalein before adding the glycerophosphate, et cetera.—Giorn. farm. chim. 1920, v. 69, p. 113-118.

Leclère, A.: The precipitation of strychnine in mixtures of strychnine salts and alkali glycerophosphates can be prevented by the use of cane sugar, which has a distinct solvent action on the alkaloid. A formula for the preparation of hypodermic solutions containing these substances is given.—J. pharm. et chim. 1920, v. 21, p. 183.

Hartenberg, P.: A discussion of the dosage of strychnine and its salts.—Bull. sc. pharmacol. 1920, v. 27, p. 293-296.

STRYCHNINÆ SULPHAS.

Hendrix: The precipitate which forms in ampoules containing a solution of strychnine sulphate and sodium cacodylate is identified as strychnine cacodylate. The formation of the precipitate is caused by the alkalinity of the sodium cacodylate.—Vl. Geneesk. Tijdschr. 1920, p. 5, through J. pharm. Belg. 1920, v. 2, p. 1.

Leclère, A.: A note on the incompatibility of strychnine sulphate with the glycerophosphates and the alkaline cacodylates. The addition of sugar is stated to prevent precipitation.—J. pharm. et chim. 1920, v. 21, p. 183.

Hartenberg, P.: It is claimed that owing to the rapid elimination and acquired tolerance of strychnine, the administration of this drug can be increased to 0.5 milligram per day when the dosage is commenced at the initial tolerance level of the individual.—Bull. sc. pharmacol. 1920, v. 27, p. 293–296.

STYRAX.

Hilton, S. L.: The definition for storax should be so worded as to admit American storax. American storax seems to answer every purpose and it is plentiful, while the Oriental has been unobtainable for some time.—J. Am. Pharm. Assoc. 1920, v. 9, p. 412.

Snyder, J. P.: It is suggested that the U. S. P. Revision Committee take under consideration the advisability of modifying the requirement for storax in order that American storax obtained from the sweet gum tree may be officially recognized.—Proc. New York Pharm. Assoc. 1920, p. 207.

Éwe, George E.: It is suggested that as U. S. P. storax is unobtainable an available type should be included in the U. S. P.—J. Am. Pharm. Assoc., 1920, v. 9, p. 412.

Engelhardt, H.: There seems to be no reason for not using South American or Central American storax, in place of the unobtainable Oriental storax. The products offered for sale are certainly of first-class quality.—Proc. Maryland Pharm. Assoc. 1920, p. 24.

Watermeyer, F. E.: An account of the occurrence and collection of American storax, the balsam obtained from *Liquidamber styraciflua*, a native of Honduras.—Am. Druggist, 1920, v. 68, p. 20.

Bohrisch: A report of a chemical study of storax. The chemical and physical constants of the balsam are given in the form of a table.—Pharm. Zentralh. 1920, v. 61, p. 335–343.

Spokes, Ray E.: A report of a chemical examination of American storax.—J. Am. Pharm. Assoc., 1920, v. 9, p. 1055-1060.

Tsuchihashi and Tasaki: Data obtained in the chemical examination of samples of storax from *Liquidamber Formosana* Hance are presented.—Chem. Umschau. 1919, v. 26, p. 226, through Pharm. Zentralh. 1920, v. 61, p. 275.

Fourneau, Ernest, and Crespo, Mario: Analytical data obtained in the alcoholysis of the balsams of Peru and Tolu, storax, and benzoin are presented.—Anales soc. española fis. quim. 1920, v. 18, p. 148–153.

Eli Lilly & Co.: Samples, purporting to be storax, are still offered which are made up of a mixture of Tolu, tar, etc.—Proc. N. W. D. A. 1920, p. 359.

Baker, J. T.: Two lots of storax labeled "Artificial" yielded the following results: the ash content for one was unweighable, and the other 0.08 per cent: acid value, 144 and 154.8; saponification number 171 and 221. The U. S. P. requires 1 per cent ash, acid value 56-85 per cent, and saponification number 170-230.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

SUCCUS CITRI, N. F.

Anon.: A sample of lime juice purchased on the English market was found to contain 1.6 per cent of phosphoric acid and 0.14 per cent of salicylic acid.—Brit. Food J. 1920, v. 22, p. 117.

SULPHONETHYLMETHANUM.

Zimmermann, Walter: Methods for the identification of sulphonal and trional are described.—Apoth.-Ztg. 1920, v. 35, p. 27, through Pharm. Monatsh., 1920, v. 1, p. 60.

Braune: A note on the use of trional in the treatment of epilepsy and other nervous diseases. It is stated that trional acts like the bromides in epilepsy in that it decreases the number of attacks.—Therap. Monatsh. 1920, v. 34, p. 71.

SULPHUR SUBLIMATUM.

Noyer: It is suggested that only the products containing 33 per cent of amorphous sulphur insoluble in carbon disulphide be designated as "flowers of sulphur" and that all of the other products which are not remelted after sublimation be known as "sublimed sulphur."—Chem. Zentralbl. 1920, v. 91, part 1, p. 105.

Farr, C. C., and Macleod, D. B.: The viscosities found for sulphur are: 0.1094 at 123° C., 0.0709 at 150° C., 5.0 at 165° C., 215 at 200° C., and 186 at 220° C.—Proc. Roy. Soc. Lond. 1920, v. 97A, p. 80–98.

Bary, Paul: A study of the properties of colloidal sulphur. Colloidal sulphur exists in two forms, a milky liquid, not very stable, and a clear, colorless, or pale yellow liquid which is very stable even in concentrations up to 50 per cent.—Compt. rend. acad. sc. 1920, v. 171, p. 433–435.

Scott: A brief review of recent work on the constitution of sulphur. Three forms of crystals have been observed microscopically in cooling liquid sulphur, namely, rhombic, prisms, and spherulites.—Chem. Trade J. 1919, v. 65, p. 443–444, through Chem. Abstr. 1920, v. 14, p. 256.

Committee on U. S. P. Philadelphia Coll. Pharm.: The assay of sulphur is a difficult one and not infrequently runs amuck. Is this assay really necessary to insure a product of the desired purity? The good appearance of the sulphur in connection with a limit for nonvolatile matter, and a few more simple tests if needed, will insure as pure a product as is afforded by an assay. Why then burden the users of the Pharmacopœia with unnecessary work? Most probably the assay of sulphur and a few other similar official assays are very little used and then only as a matter of formality.—Am. J. Pharm. 1920, v. 92, p. 551.

Mayrhofer, Adolf: Microchemical tests for the identification and purity of sulphur, washed sulphur, and precipitated sulphur are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 79–80.

Davis, H. S., and Davis, Mary D.: The method of Schaeppi for the detection of arsenic in sulphur is found to be inaccurate since it assumes that no reaction takes place between sulphur and dilute ammonium hydroxide, whereas distinct traces of NH_4HS are formed. A reliable method consists in oxidizing sulphur with bromine and nitric acid and testing the residue by Gutzeit's method.—J. Ind. & Eng. Chem. 1920, v. 12, p. 479–480.

Bushnell, L. S., and Clark, H. S.: A method for the determination of minute quantities of oil in sulphur is described. Illustrated.—J. Ind. & Eng. Chem. 1920, v. 12, p. 485.

SUPPOSITORIA.

Anon.: One part of spermaceti dissolved in 3 parts of olive oil is stated to be a suitable substitute for cocoa butter in the making of suppositories. It melts at 37° C.—Pharm. Post, 1918, v. 51, p. 562.

SUPRARENALUM SICCUM.

Gane, E. H.: It is suggested that epinephrine be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Richter, E.: A report of studies on the biochemistry of hypophysis, suprarenal, and thyroid glands.—Deutsch. med. Wchnschr. 1919, v. 45, p. 709.

Stoeltzener, W.: It has been observed that adrenaline gives the same reaction with CrO_3 as certain tissues. A brown precipitate gradually forms when adrenaline is added to a pale yellow solution of potassium dichromate.—Münch. med. Wchnschr. 1919, v. 66, p. 584.

Scoville, Wilbur L.: A critical review of colorimetric methods for the determination of epinephrine with a description of a new method based on the use of a standard solution prepared by dissolving 0.25 gram of cobaltous chloride in 10 mils of water, adding 2 grams of ammonium carbonate in 80 mils of water and making the solution up to 100 mils.—Proc. Am. Drug Mfg. Assoc. 1920, p. 317–321.

Pittenger, P. S.: In the report of the committee on physiologic assaying of the American Pharmaceutical Association, recommendations are made for changes in the U. S. P. method for assaying suprarenal glands.—J. Am. Pharm. Assoc. 1920, v. 9, p. 618.

Alday-Redonnet, T.: A report of experiments on the sensitization of the Trendelenberg frog preparation for the measurement of epinephrine. The frog muscle is rendered more sensitive by the addition of an additional amount of calcium to the perfusion liquid, the muscle apparently having been enlarged during perfusion by a disturbance of the equilibrium between calcium and potassium.—Biochem. Ztschr. 1920, v. 110, p. 306–318.

Piccinini, P.: In the presence of ferrous salts or arsenates, adrenaline solutions lose their mydriatic power in 30 days, but complete suprarenal extract is not thus affected.—Arch. farmacol. sper. 1919, v. 27, p. 3–16.

Clerc, A., and Pezzi, C.: A report of researches on the antagonism of adrenaline and quinine.—J. physiol. et path. gén. 1920, v. 18, p. 1174–1181.

Kägi, Adrienne: Constant blood changes were observed after subcutaneous injections of 0.5 to 1.0 milligram of adrenaline. The most constant finding was a leucocytosis involving cells of both lymphoid and myeloid origin.—Folia Hematol. 1920, v. 25, p. 107–152, through Chem. Abstr. 1920, v. 14, p. 2515.

Sandiford, Irene: A study of the effect of the subcutaneous injection of adrenaline chloride on the heat production, blood pressure, and pulse rate in man.—Am. J. Physiol. 1920, v. 51, p. 407–422.

Hess, W. R., and Grundlach, R.: A study of the effect of adrenaline on the secretion of gastric juice. Secretion was found to be inhibited by the intravenous or intramuscular injection of adrenaline.—Arch. ges. Physiol. 1920, v. 185, p. 122–136.

Marie, A.: A study of the action of adrenaline on bacterial toxins. Adrenaline renders innocuous the toxins of diphtheria and tetanus, abrin, and crotin.—Ann. inst. Pasteur, 1919, v. 33, p. 645–656.

SYRUPI.

Lascoff, J. L.: It is recommended that the following be deleted from the N. F.: syrup of asarum, syrup of morphine and acacia, syrup of white pine with morphine.—J. Am. Pharm. Assoc., 1920, v. 9, p. 597–598.

Ort, John M., and Withrow, James R.: Experimental studies on the preparation of sugar syrup from home-grown sugar beets.—J. Ind. & Eng. Chem. 1920, v. 12, p. 154–156.

Francis, J. M.: It is suggested that glycerin be substituted for sugar in those syrups containing free acids in order to avoid darkening in color on standing.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413.

Sidersky, D.: Data relative to the density of pure sucrose and the contraction in volume of its aqueous solutions are presented and discussed.—Bull. assoc. chim. sucr. dist., 1919, v. 37, p. 73–77, through Chem. Abstr. 1920, v. 14, p. 362.

Désesquelle: The syrups of belladonna, aconite, and digitalis of the Ph. Fr. are thought to be too potent. It is contended that no syrup should contain in 20 grams a dose of a poisonous tincture in excess of the official maximum adult dose for a single administration.—J. pharm. et chim. 1920, v. 21, p. 71.

Richmond, H. Droop, and Ison, Edith M.: A description of a rapid volumetric method for the estimation of iron in syrups, applicable in the presence of hydrochloric acid, phosphorus, oxy-acids, and organic matter.—Analyst (The), London, 1920, v. 45, p. 258–260.

Buttin, Louis: A historical note on the syrup of five barks.—Schweiz. Apoth.-Ztg. 1920, v. 58, p. 510–511.

SYRUPUS ACIDI HYDRIODICI.

Snyder: It is recommended that the U. S. P. include a statement to the effect that syrup of hydriodic acid should be made in small quantities only and that it be stored in a cool place. The dark color which frequently develops is stated to be due to the decomposition of a portion of the sugar by the acid. Glycerin can not be substituted for the sugar as a very disagreeable odor develops in the preparation.—Proc. Am. Drug Mfg. Assoc. 1920, p. 251–253.

SYRUPUS AURANTII.

Hilton, S. L.: It is suggested that in syrup of orange the citric acid be omitted. This will make a more stable preparation, just as pleasant to taste, and the author sees no advantage to be obtained by having an acid syrup.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413.

SYRUPUS FERRI IODIDI.

van der Wielen: Data obtained in the determination of iodine in syrup of ferrous iodide by Hunter's method and the method given in the Dutch pharmacopœia are presented.—Pharm. Weekblad, 1920, v. 57, p. 706.

Scholar Abel: Changes in the Ph. Brit. method for the preparation of syrup of ferrous iodide are suggested.—Chem. & Drug. 1920, v. 93, p. 1166.

Bachman, Gustav: Of six samples of syrup of ferrous iodide examined only one was below strength.—Proc. Minnesota Pharm. Assoc. 1920, p. 108.

SYRUPUS HYPOPHOSPHITUM.

Committee on U. S. P., Philadelphia Coll. Pharm.: It is suggested that calcium hypophosphite be dissolved in the water with the acid of the hypophosphorous acid as the first step in the making of syrup of hypophosphites: otherwise there is often difficulty experienced in obtaining its solution.—Am. J. Pharm. 1920, v. 92, p. 560.

SYRUPUS IODOTANNICUS, N. F.

Malmanche, L.: A modified French Codex formula for the preparation of the syrup of iodotannin is described.—Bull. sc. pharmacol. 1920, v. 27, p. 40–41.

Éwe, Geo. E.: It is suggested that an assay process for iodine in syrup of iodotannin be included in the new N. F. Direct titration of the iodides by means of silver nitrate and potassium sulphocyanide is suggested.—Am. J. Pharm. 1920, v. 92, p. 172–173.

SYRUPUS IPECACUANHÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: Acetic acid should be omitted from the formula for syrup of ipecac. as hydrochloric acid is used in the fluidextract when made according to the U. S. P. formula.—Am. J. Pharm. 1920, v. 92, p. 560.

SYRUPUS LACTUCARII.

Gane, E. H.: It is suggested that syrup of lactucarium be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Stone, W. H.: It is suggested that syrup of lactucarium be deleted. There is very little demand for it. The price of the drug is too high to warrant its use and the material has been practically unobtainable for the past two years.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413.

Committee on U. S. P. Philadelphia Coll. Pharm.: The process for syrup of lactucarium suggested by Beringer (Am. J. Pharm., p. 315, 1909) is recommended for the U. S. P.—Am. J. Pharm. 1920, v. 92, p. 560.

SYRUPUS PRUNI VIRGINIANÆ.

Busch, Henry P.: A formula for the preparation of a stable syrup of wild cherry is given. This formula is stated to yield a syrup which will not ferment or otherwise deteriorate on standing.—J. Am. Pharm. Assoc. 1920, v. 9, p. 413–414.

SYRUPUS SENEGÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: A process far superior to the present U. S. P. method for making syrup of senega is suggested by Beringer (Am. J. Pharm., p. 320, 1909).—Am. J. Pharm. 1920, v. 92, p. 561.

SYRUPUS SENNÆ.

Rusby, H. H.: The dose of syrup of senna is the same as that of the fluidextract, nothwithstanding that the latter is four times as strong.—Am. Druggist, 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

TALCUM PURIFICATUM.

Anon.: The U. S. Geological Survey, Department of the Interior, reports that the output of talc in the United States during 1918 amounted to 191,477 short tons.—Drug & Chem. Markets, 1920, v. 6, No. 3, p. 108.

Hilton, S. L.: In the case of purified talc, coarse powder should be specified for filtration purposes; the fine powder is unsatisfactory.—J. Am. Pharm. Assoc. 1920, v. 9, p. 414.

TAMARINDUS, N. F.

H. M.: It is recommended that the new edition of the Ph. Germ. include a method for the determination of the acid content of tamarind pulp.—Südd. Apoth.-Ztg., 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

TARAXACUM.

Rusby, H. M.: There can be no sound, practical reason for calling taraxacum a rhizome and root.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

Anon.: Statistics are given on the sources of supply and on the importation of dandelion root for the years 1909–1919.—Tariff Commission Series, 1920, No. 19, p. 39–40.

Scherff, Earl E.: A critical study of the North American species of *Taraxacum*.—Bot. Gaz. 1920, v. 70, p. 329–359.

Lampa, Robert R.: The average ash content of dandelion root found on the market is 12.5 per cent. The U. S. P. allows not over 10 per cent.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E.: Two lots of taraxacum examined were rejected as they were infested with worms.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

TEREBENUM.

Éwe, Geo. E.: Occasional market supplies of terebene have a higher boiling range than U. S. P. permits. An opinion is desired whether this nonconformance warrants rejection as being non-U. S. P. Occasional lots answer all U. S. P. requirements except that the boiling range mounts as high as 185° C. instead of only 172° C., as prescribed by the U. S. P.—J. Am. Pharm. Assoc. 1920, v. 9, p. 414.

Baker, J. T.—Two lots of terebene examined were not of U. S. P. quality, as they did not comply with the boiling range requirement.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 118.

TEREBINTHINÆ, N. F.

Simonsen, John L.: A report of the examination of the constituents of Indian turpentine obtained from *Pinus longifolia*, Roxb.—J. Chem. Soc. Lond. 1920, v. 117, p. 570–578.

Shinosaki, Yeinosuke and Ono, Tetsuji: Data obtained in the analysis of Chinese pine resin and its essential oil are presented. The volatile oil was found to consist principally of α-pinene.—J. Chem. Ind. Tokyo, 1920, v. 23, p. 3–4.

TERPINI HYDRAS.

Frerich, G.: Terpin hydrate melts at 102° C. after having been heated long enough to lose all of its water of crystallization. The melting point of 116° C. is only observed when terpin hydrate is heated rapidly. The Ph. Germ. should, therefore, state that terpin hydrate melts on being heated rapidly at 116° C. evolving bubbles of steam.—Apoth.-Ztg. 1917, v. 32, p. 480, through Semi-Ann. Rep. 1918, Apr.–Oct. p. 67.

TERRA SILICEA PURIFICATA.

Éwe, Geo. E.: The limit of loss in purified siliceous earth upon ignition may be too low. It is suggested that the U. S. P. Revision Committee consult with manufacturers in an effort to have them supply U. S. P. material. Otherwise the allowable loss upon ignition should be raised. Lots received during the past 5 years yielded losses ranging from 4.8 per cent to 23.4 per cent.—J. Am. Pharm. Assoc. 1920, v. 9, p. 414.

Éwe, Geo. E.: Notes on the selection of kieselguhr for the filtration of serums.—J. Lab. Clin. Med. 1920, v. 5, p. 538–540.

Mann, Albert: An article discussing the economic importance of the diatoms.—Am. Perf. 1920, v. 15, p. 369.

THEOBROMINÆ SODIO-SALICYLAS.

Schaap, O. P. A. H.: The Vulpius method, official in the Ph. Ndl. IV, for the determination of theobromine in theomobrine sodiosalicylate is found to be inaccurate, an error of 15 per cent being possible. A method, in which precipitation is effected with zinc sulphate, is described.—Pharm. Weekblad, 1920, v. 57, p. 1234–1236.

Mossler, G.: Methods for testing theobromine sodio-salicylate are described. Assayed according to the methods described, the theobromine content should be at least 45 per cent and the sodium salicylate content from 41.6 to 42.6 per cent. The moisture content should not exceed 3 to 5 per cent.—Ztschr. allgem. österr. Apoth.-Ver. 1919, v. 57, Nos. 23 and 24, through Pharm. Zentralh. 1920, v. 61, p. 659.

THEOPHYLLINA.

Rusby, H. H.: The plant yielding theophylline should be referred to the family *Theaceæ*.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc., 1920, v. 9, p. 245.

THYMOL.

Anon.: A note states that the oil of *Ocimum viride* Willd. is a new source of thymol.—Bull. Imp. Inst. 1920, v. 18, No. 3, p. 348–350.

Smith, H. G., and Penfold, A. R.: An account of the manufacture of thymol, menthone, and menthol from eucalyptus oils.—J. Proc. Roy. Soc. N. S. Wales, 1920, v. 54, p. 40–47.

Phillips, N.: U. S. patent No. 1,332,680 describes the preparation of thymol from p-cymene.—Chem. Abstr. 1920, v. 14, p. 1184; J. Ind. & Eng. Chem. 1920, v. 12, p. 733–734.

Kariyone, Tatsuo, and Atsumi, Kenjiro: A method for the quantitative estimation of thymol in mosla oil is described.—J. Pharm. Soc. Japan, 1920, No. 462, p. 707–713.

Livingston, A. E.: Toxicity of thymol and carvacrol. From experiments on rabbits and paramœcia it is concluded that there is no striking difference between the toxicity of these two substances.—J. Pharmacol. & Exper. Therap., 1920, v. 15, p. 234.

THYMOLIS IODIDUM.

Moles, E., and Marquina, Th.: Some notes on the aristols and on the quantitative determination of thymol.—Ann. Soc. Esp. Ph. Ch., 1919, 17, p. 59–83, through Bull. soc. chim. France, 1920, v. 28, p. 359–360.

THYMUS, N. F.

Caballero: Illustrated descriptions are given of species of *Thymus zygis* L. occurring in Spain.—Chem. & Drug., 1920, v. 93, p. 999–1000.

THYROIDEUM SICCUM.

Kendall, E. C., and Osterberg, A. E.: Studies on the chemical identification of thyroxin. An account is given of the chemical and physical properties of the active principle of the thyroid gland.— J. Biol. Chem., 1920, v. 40, p. 265.

Kendall, E. C., et al.: The determination of iodine in connection with studies in thyroid activity is described.—J. Biol. Chem., 1920, v. 43, p. 149–159.

Van der Wielen: Data obtained by the use of the different proposed methods for the determination of iodine in thyroid gland are presented.—Pharm. Weekblad, 1920, v. 57, p. 706.

Richter, E.: A report of studies on the biochemistry of hypophysis, suprarenal and thyroid glands.—Deutsch. med. Wchnschr., 1919, v. 45, p. 709.

Gröbly, W.: From experiments it is concluded that the nucleoprotein of the thyroid gland diminishes the solubility of the colloid: hence, the function of this material is to retain colloid in the gland. A deficiency of the nucleoprotein would lead, therefore, to increased resorption of the colloid, and hence hyperthyrosis.—Endocrinology, 1919, v. 3, p. 118.

Seaman, Emily C.: A study of the influence of an alcoholic extract of the thyroid gland upon polyneuritic pigeons and the metamorphosis of tadpoles.—Am. J. Physiol. 1920, v. 53, p. 101–108.

Editorial: A report of the first case of myxedema successfully treated with thyroid extract.—Endocrinology, 1920, v. 4, p. 600–602.

Strandberg, J.: Five out of 9 cases of alopecia areata maligna showed marked improvement upon the administration of thyroid.—Acta Med. Scand., v. 52, part 1–2, p. 165–175, through Chem. Abstr. 1920, v. 14, p. 768.

TINCTURÆ.

Gane, E. H.: It is suggested that the following be deleted from the U. S. P.: tincture of aloes, tincture of musk, tincture of physostigma, tincture of veratrum viride.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Mittelbach, Wm.: The introduction into the U. S. P. of a class of 50 per cent tinctures is advocated. These are intended to replace the present official tinctures and fluidextracts, eliminating some of both groups that have outlived their usefulness.—Proc. Missouri Pharm. Assoc. 1920, p. 54.

Peiro, Enrico: The narcotic tinctures of the Ph. Ital. are reviewed and it is suggested that they be standardized to contain a definite amount of active principle.—Boll. chim.-farm. 1919, v. 59, p. 97–105.

Runge, Paul, and Gröbing, Johs.: A report of an investigation to determine if the alcohol content of tinctures prepared according to the Ph. Germ. can be reduced without detracting from the value of these preparations. The experimental work was done on the tinctures of cinchona, nux vomica, and valerian.—Apoth.-Ztg. 1920, v. 35, p. 35–36; Pharm. Zentralh. 1920, v. 61, p. 673.

H. M.: It is recommended that the new Ph. Germ. include tests for the identity and strength of the tinctures of aconite, cantharides, colocynth, digitalis, strophanthus, and veratrum.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

TINCTURA ACONITI.

Éwe, Geo. E.: A reduction in the alkaloidal standard for tincture of aconite to 0.04 to 0.05 gram alkaloids per 100 cubic centimeters and a corresponding change in the physiological standard is suggested. (See suggestions under aconitum.)—J. Am. Pharm. Assoc. 1920, v. 9, p. 414–415.

TINCTURA ALOES.

Thum, John K.: A menstruum consisting of 1 part alcohol and 3 parts of distilled water is recommended for the preparation of tincture of aloes.—J. Am. Pharm. Assoc. 1920, v. 9, p. 251.

TINCTURA BENZOINI COMPOSITA.

Éwe, Geo. E.: It is suggested that in the U. S. P. formula for compound tincture of benzoin an obtainable variety of storax be substituted for the storax official at the present time.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

TINCTURA CARDAMOMI COMPOSITA.

Hammond, H. B.: In order to avoid the tendency of compound tincture of cardamom of the Ph. Brit. to decolorize, it is recommended that cudbear be substituted for cochineal.—Pharm. J. 1920, v. 105, p. 213.

TINCTURA CINCHONÆ.

Thum, John K.: A menstruum consisting of 50 per cent alcohol is stated to be just as suitable for exhausting cinchona as a menstruum containing 67.5 to 70 per cent of alcohol. In case the weaker menstruum is used, it is recommended that the time of maceration be increased from 24 to 48 hours.—J. Am. Pharm. Assoc. 1920, v. 9, p. 251.

Bailey, E. M.: Of 7 samples of tincture of cinchona examined, 2 failed to comply with the U. S. P. requirements.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

TINCTURA CINCHONÆ COMPOSITA.

Thum, John K.: Compound tincture of cinchona should be made with a menstruum of dilute alcohol. At the present time, when alcohol is being heavily taxed, any legitimate means of exercising economy in its use will be welcomed by the retail pharmacist and manufacturer. It has been my experience that the drugs are thoroughly exhausted by using diluted alcohol, U. S. P. Assaying of the finished product bears out this statement. It has also been noticed that in dispensing and mixing with other preparations in prescription work better and more sightly mixtures are the result.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

Bailey, E. M.: Of 24 samples of compound tincture of cinchona examined, 10 failed to comply with the U. S. P. requirements.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

TINCTURA COLCHICI SEMINIS.

Webber, Ebbert: The author describes a method for assaying tincture of colchicum seed. There is only a slight change in the method submitted from the method given in the Pharmacopœia, but it is stated that this change will eliminate two probable errors in manipulation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

TINCTURA DELPHINI, N. F.

Lascoff, J. L.: Another menstruum should be specified in place of alcohol for the preparation of tincture of larkspur.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598.

TINCTURA DIGITALIS.

Robinson, G. Canby: The administration of the tincture of digitalis in large, single doses is advocated as a useful method of treatment in certain cases of heart disease, provided the tincture is standardized, the dose regulated, and the patient kept under close observation.—New York M. J. 1920, v. 111, p. 176.

TINCTURA FERRI CHLORIDI.

Scoville, Wilbur L.: Since the Pharmacopœia now provides that all of the nitrous oxide shall be driven off in the preparation of solution of ferric chloride, esters no longer form in the tincture and it is useless to age the latter as directed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 282.

Holt, Thomas: Of 12 samples of tinctures of iron examined, 1 was not of U. S. P. quality.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Bachman, Guztav: Of 7 samples of tincture of ferric chloride examined, only 1 was of U. S. P. strength.—Proc. Minnesota Pharm. Assoc. 1920, p. 107.

TINCTURA GENTIANÆ COMPOSITA.

Thum, John K.: For the preparation of compound tincture of gentian, the use of a menstruum consisting of 400 cubic centimeters of alcohol and 600 cubic centimeters of distilled water is recommended.—J. Am. Pharm. Assoc. 1920, v. 9, p. 250.

Thum, John K.: It is recommended that in compound tincture of gentian the glycerin be eliminated in the interest of economy, as it fails to accomplish its object. Glycerin was added to diminish precipitation, which takes place almost at once, and in our experience can not be prevented. As the extractives contained in the drugs comprising this tincture are easily soluble in the menstruum required by the Pharmacopœia, very light packing of the drugs for percolation is advantageous in that it hastens the process and prevents the going through of inert matter. The Pharmacopœia should have a requirement that the preparation be allowed to stand about a week or ten days and then filtered.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

TINCTURA HYOSCYAMI.

Thum, John K.: It is stated that a tincture equal to the one now official in the U. S. P. can be prepared by percolating hyoscyamus with 50 per cent alcohol.—J. Am. Pharm. Assoc. 1920, v. 9, p. 251.

Stone, W. H.: In the preparation of tincture of hyoscyamus, a menstruum of 6 volumes of alcohol and 3 volumes of water is suggested. This menstruum yields a clearer and brighter preparation.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

Hilton, S. L.: The U. S. P. IX requires 250 cubic centimeters of tincture of hyoscyamus for the assay. This is advantageous because it yields a large amount of alkaloids to be finally titrated, but it has a serious disadvantage in that it introduces a very large amount of fat which is found to be so troublesome that it is almost impossible to separate the alkaloids and obtain concordant results. The latter more than overbalances the care that is necessary in working on the smaller amount of alkaloids obtained from 100 cubic centimeters of tincture. Repeated failures have been made working with 250 cubic centimeters of tincture owing to the fat, while with 100 cubic centimeters of tincture there was practically no trouble.—J. Am Pharm. Assoc. 1920, v. 9, p. 415.

TINCTURA IODI.

Anon.: The iodated tincture of iodine of the supplement to the Ph. Fr. is composed of iodine 10 grams, potassium iodide 4 grams, and alcohol (90 per cent) 136 grams.—Chem. & Drug. 1920, v. 92, p. 456.

Paulssen, E. Magnus: By the use of high-percentage alcohol in the preparation of tincture of iodine of the Ph. Norv., complete solution of the iodine can be effected in 10 to 12 hours.—Norges Apotek. Tidsskr. 19220, v. 28, p. 33.

Bachman, Gustav: Of 20 samples of tincture of iodine examined, 1 contained only 5.7 per cent of iodine, while the U. S. P. requires from 6.5 to 7.5 per cent.—Proc. Minnesota Pharm. Assoc. 1920, p. 107.

Frary, Guy G.: Of 28 samples of tincture of iodine examined, 7 were not of U. S. P. quality.—Rep. South Dakota F. & D. Com. 1920, p. 52.

Holt, Thomas: Of 17 samples of tincture of iodine examined, 4 were not up to standard.—Rep. Connecticut D. & F. Com. 1920, p. 14.

Woods, Chas. D.: Two samples of tincture of iodine examined came up to the U. S. P. standards.—Off. Insp. No. 95, Maine Agric. Exper. Sta. 1920, p. 11.

Cheinisse, L.: A review of the literature showing the beneficial effect of tincture of iodine in eye affections.—Presse Médicale, 1920, v. 28, p. 486.

TINCTURA IODI DECOLORATA, N. F.

Lascoff, J. L.: "Decolorized tincture of iodine" is not a tincture of iodine. The formula should be changed or the preparation should be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 598.

TINCTURA LACTUCARII.

Stone, W. H.: It is suggested that tincture of lactucarium be deleted from the U. S. P. There is very little demand for it. The price of the drug is too high to warrant its use and it has been practically unobtainable for the past two years.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

TINCTURA MYRRHÆ.

Linde, O.: Color reactions with fuming nitric acid and dilute sulphuric acid suitable for the identification of tincture of myrrh are described.—Apoth.-Ztg. 1920, v. 52, p. 475.

Rusby, H. H.: Tincture of myrrh is of 20 per cent strength; that is, it is only one-fifth as strong as myrrh itself, yet its dose is only twice as great.—Am. Druggist, 1920, v. 68, p. 30; J. Am. Pharm. Assoc. 1920, v. 9, p. 246.

TINCTURA NUCIS VOMICÆ.

Thum, John K.: Improvements in the present U. S. P. method for the preparation of tincture of nux vomica are suggested. A satisfactory menstruum for extracting the drug is found to consist of 650 parts of alcohol and 350 parts of water.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 273–274.

Lascoff, J. L.: It is suggested that, in view of the fact that fluidextract of nux vomica is standardized, the U. S. P. direct that the tincture be made from the fluidextract instead of by percolation of the drug as prescribed at present.—Drug. Circ. 1920, v. 64, p. 169.

Bailey, E. M.: Of 25 samples of tincture of nux vomica examined, 11 failed to comply with the U. S. P. requirements.—Rep. Connecticut Agric. Exper. Sta. 1920, p. 283.

Holt, Thomas: Of 19 samples of tincture of nux vomica examined, 10 were not up to standard.—Rep. Connecticut D. & F. Com. 1920, p. 14.

TINCTURA OPII CAMPHORATA.

Diner, Jacob: It is recommended that the opium content of paregoric be increased to 5 grams per thousand and that the tincture of opium, instead of the crude drug, be used in its preparation.—Am. Druggist, 1920, v. 68, No. 4, p. 18; J. Am. Pharm. Assoc. 1920, v. 9, p. 493.

Blair, Thomas S.: It is suggested that, in camphorated tincture of opium, the opium strength be increased to 2¼ grains per fluidounce so that it is no longer exempt under the Harrison Antinarcotic Act. Paregoric is very extensively sold and used to satisfy addiction, not only for the opium therein but for the alcohol.—J. Am. Pharm. Assoc. 1920, v. 9, p. 415.

Hommell, P. E.: It is suggested that the powdered opium used in making paregoric be replaced by fluidextract of viburnum prunifolium.—Proc. New Jersey Pharm. Assoc. 1920, p. 44.

Marquier, Adolph F.: It is suggested that the tincture of camphorated opium be replaced by an elixir of anise compound, and that "paregoric without opium" be given as a synonym for this preparation.—Proc. New Jersey Pharm. Assoc. 1920, p. 100.

TINCTURA OPII CROCATA, N. F.

H. M.: It is recommended that the tincture of opium with saffron be deleted from the Ph. Germ.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

TINCTURA PHYSOSTIGMATIS.

Thum, John K.: A menstruum consisting of three volumes of alcohol and one volume of water is found to be suitable for the preparation of tincture of physostigma.—J. Am. Pharm. Assoc. 1920, v. 9, p. 251–252.

Éwe, Geo. E.: The U. S. P. method of assay for tincture of physostigma has not yielded reliable results. A more reliable method is suggested. (See "The Assay of Calabar Beans and Calabar bean preparations on p. 1006 of the J. Am. Pharm. Assoc. December, 1919).—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

TINCTURA QUASSIÆ.

Casey, F. W.: Three of four samples of tincture of quassia examined were not of U. S. P. quality.—Bull. Michigan D. & F. Dept. 1917, No. 258–259, p. 18; No. 260–261, p. 33.

TINCTURA RHEI.

Snyder, J. P.: In the case of tincture of rhubarb, U. S. P., a satisfactory product was not obtained with the official formula nor did a better product result when glycerin was omitted, as both precipitated upon standing, although it can not be said that the absence of glycerin tended to increase the volume of the precipitate. To make an entirely satisfactory tincture it is necessary to resort to aging.—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

TINCTURA SANGUINARIÆ.

Éwe, Geo. E.: A proposed method and standard for tincture of sanguinaria are described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

TINCTURA STROPHANTHI.

Thum, John K.: It is recommended that the menstruum employed in the preparation of tincture of strophanthus be directed to consist of 750 parts of alcohol and 250 parts of distilled water.—J. Am. Pharm. Assoc. 1920, v. 9, p. 251.

Bennett, C. T.: A number of suggestions bearing on the standardization of strophanthus and its tincture are made. The author prefers a chemical method of standardization—that of Barclay as modified by Haycock. A standard of 0.6 per cent of strophanthin is recommended for the tincture.—Pharm. J. 1920, v. 105, p. 83; Chem. & Drug. 1920, v. 93, p. 85–86.

H. M.: It is recommended that the new edition of the Ph. Germ. include an assay method for the determination of strophanthin in tincture of stophanthus.—Südd. Apoth.-Ztg. 1918, v. p. 245. through Pharm. Zentralh. 1920, v. 61, p. 6.

TINCTURA VANILLÆ, N. F.

Bartlett, K. A.: It is stated that there has never been a satisfactory official formula in the U. S. P. and N. F. for the preparation of tincture of vanilla. A method which is said to give good results is described.—J. Am. Pharm. Assoc. 1920. v. 9, p. 706–708.

DeGroote, Melvin: An article dealing with the various factors affecting vanilla percolation, including selection of the bean, moisture content of the bean, use of glycerin in the menstruum, type of percolator, method of percolation, comminution of the bean for percolation, alcohol percentage of the percolate, final dilution of the percolate, et cetera.—Simmons' Spice Mill. 1920, v. 43, p. 1470, 1472, and 1474.

TINCTURA ZINGIBERIS.

Committee on U. S. P. Philadelphia Coll. Pharm.: It has been shown that 75 per cent alcohol extracts all of the active contituents of the tincture of Jamaica ginger. The resulting product will have to be restandardized from the standpoint of maximum and minimum extraction.—Am. J. Pharm. 1920, v. 92, p. 561.

Scoville, Wilbur, L.: The U. S. P. recognizes six different botanical species of ginger, but restricts the variety used in the preparation of the tincture of Jamaica ginger. If all varieties are of equal medicinal value, it is thought that it would be more practical to allow the pharmacist to select the variety to suit his customers.—J. Am. Pharm. Assoc. 1920, v. 9, p. 281.

Anon.: A committee representing the makers of flavoring extracts has put forth the suggestion that the present strength of the tincture of ginger be doubled in order that it may not be used for beverage purposes.—Bull. Pharm. 1920, v. 34, p. 441–442.

Geisler, Joseph F.: Attention is directed to what is apparently an error in the U. S. P. description of standards for ginger. The U. S. P. states that the yield of residue on evaporating 10 grams of tincture does not exceed 2 per cent. It was evidently intended to indicate the amount of extractive as a minimum of 2 per cent.—Am. Druggist, 1920, v. 68, No. 12. p. 54.

Snyder, J. P.: Attention is directed to the U. S. P. standard for tincture of ginger. It is evident that the standards for solids and water-soluble solids are wrong.—J. Am. Pharm. Assoc. 1920. v. 9, p. 416.

TOXITABELLÆ HYDRARGYRI CHLORIDI CORROSIVI.

Bouvet, Maurice: An article dealing with the preparation and assay of mercuric chloride tablets.—Bull. sc. pharmacol. 1920. v. 27, p. 375–388, 445–451.

TRAGACANTHA.

Anon.: A brief description of the production of gum tragacanth in Mesopotamia.—Board of Trade J. 1919, v. 103, No. 1199, p. 623–624. through Intern. Rev. Sc. & Pract. Agric. 1920, v. 11, p. 200–201.

Ballard, C. W.: Notes on the identification of tragacanth gum by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

H. M.: It is recommended that the new edition of the Ph. Germ. include a test for the presence of oxidases under tragacanth.—Südd. Apoth.-Ztg. 1918, v. 58, p. 245, through Pharm. Zentralh. 1920, v. 61, p. 6.

Thévenon, L.: A test for the detection of gum arabic in powdered gum tragacanth is based on the fact that the former develops a violet-blue coloration with pyramidon solution and hydrogen peroxide.—Ann. falsif. 1920, v. 13, p. 489.

Englehardt, H.: One shipment of tragacanth examined consisted largely of Indian gum.—Proc. Maryland Pharm. Assoc. 1920, p. 25.

TRILLIUM, N. F.

Lampa, Robert R.: The average ash content of beth root found on the market is 7 per cent. The N. F. allows not over 5 per cent.—Am. Druggist. 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

Éwe, George E.: One lot of beth root examined contained a slight admixture of convallaria root, a second lot contained some wild yam, and a third lot contained a slight admixture of cypripedium.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

TRINITROPHENOL.

Marqueyrol, M., et al.: A report of experiments on the preparation of picric acid by the nitric acid method, using nitric acids of different concentrations.—Bull. soc. chim. France, 1920, v. 27, p. 143–148.

Hommell, P. E.: While picric acid is sometimes serviceable in burns, its use is not infrequently attended by poisoning and it becomes a question whether or not it should be retained in the U. S. P.—Proc. New Jersey Pharm. Assoc. 1920, p. 42.

Brown, E. D., et al.: Data are given showing the toxicity of picric acid in the case of the frog and the rabbit.—J. Pharmacol. & Exper. Therap. 1920, v. 15, p. 235–236.

TRITICUM.

Éwe, George E.: Three lots of triticum were examined. One contained a large proportion of starch-bearing drug, another was not true triticum, and the third was *Capriola dactylon.*—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

Rusby, H. H.: No careful manufacturer or pharmacist will make use of the root portions of the drug. The fact that this is permitted by the U. S. P. leads to the mixing of the roots rejected from one lot with some other lot.—Am. Druggist, 1920, v. 68, p. 28; J. Am. Pharm. Assoc. 1920, v. 9, p. 245.

TROCHISCI.

Committee on U. S. P. Philadelphia Coll. Pharm.: Troches should be either omitted from the Pharmacopœia or modernized as to flavor and size. The principle of making all troches 1 gm. in weight has proven very satisfactory in the N. F. The cubeb troche is probably the only one of the official troches which is needed.—Am. J. Pharm. 1920, v. 92, p. 561.

ULMUS.

Ballard, C. W.: Notes on the identification of elm bark gum by means of the phenylhydrazine reaction.—J. Am. Pharm. Assoc. 1920, v. 9, p. 31–36.

UNGUENTA.

Gane, E. H.: It is suggested that calomel ointment be included in the next U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Gerstner, Robert R.: It is suggested that the Revision Committee consider the advisability of substituting the more suitable petroleum products for the animal fats in zinc ointment, iodine ointment, and ointments containing sulphur and tar.—Am. Druggist, 1920, v. 68, No. 4, p. 58; J. Am. Pharm. Assoc. 1920, v. 9, p. 491–493.

Hommell, P. E.: A recent writer states that an ointment base made of 125 grams of white wax and 675 grams of hydrogenated cottonseed oil is readily absorbable, stable, and not prone to rancidity. Its use in place of benzoinated lard is worthy of consideration from a pharmaceutical and therapeutical standpoint.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Anon.: A 1 per cent ointment of menthol, with a petrolatum base, is included in the new supplement to the Ph. Fr.—Chem. & Drug. 1920, v.92, p. 456.

Eldson, G. D.: A description of a modified Wilkie method for the determination of phenol and salicylic acid in the Ph. Brit. ointments. The method requires the addition of an excess of N/10 iodine solution to a solution of the phenol or salicylic acid rendered alkaline by sodium carbonate, and the titration of the excess of iodine after acidification.—Pharm. J. 1920, v. 105, p. 86; Chem. & Drug. 1920, v. 93, p. 1066.

Labat, A.: A discussion of formulas for the preparation of ointments and solutions containing sulphurated potash.—Bull. soc. pharm. Bordeaux, 1920, v. 58, p. 226–232.

Éwe, George E.: Chemical and physiological tests for the standardization of veterinary blistering ointments are described.—J. Am Pharm. Assoc. 1920, v. 9, p. 255–257.

UNGUENTUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: Yellow wax produces a better product than white wax, and the color is not objectionable. The ointment is smoother and seems to be preserved more satisfactorily.—Am. J. Pharm. 1920, v. 92, p. 561.

Lewyn, I.: In the preparation of simple ointment the following change is recommended: in place of benzoinated lard use 200 grams of white wax and 800 grams of peanut oil in lard form.—J. Am. Pharm. 1920, v. 9, p. 416.

UNGUENTUM ACIDI BORICI.

Committee on U. S. P. Philadelphia Coll. Pharm.: Paraffin is not a satisfactory hardening agent in ointment of boric acid. White wax or spermaceti would be better. Paraffin always causes the ointment to become granular.—Am. J. Pharm. 1920, v. 92, p. 562.

Lewyn, I.: The following formula for ointment of boric acid is recommended: boric acid 100 grams, ointment 900 grams. Mix. This is simple and easy to make and will keep in any climate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

Hilton, S. L.: Paraffin is unsatisfactory in ointments. The formula for ointment of boric acid should be experimented with, as the ointment does not keep well.—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

UNGUENTUM ACIDI TANNICI.

Gane, E. H.: It is suggested that ointment of tannic acid be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Lewyn, I.: The following formula for ointment of tannic acid is suggested: tannic acid, 20 grams; glycerin, 20 grams; and ointment, 60 grams.—J. Am. Pharm. Assoc. 1920, v. 9, p. 416.

UNGUENTUM AQUAE ROSÆ.

Hommell, P. E.: The author states that there is found no need of any improvement in the present formula for ointment of rose water. Physicians frequently direct that it be incorporated with different drugs in dermal affections. Some, particularly the laity, prefer a cold cream with a petroleum base. The U. S. P. or N. F. should contain such a one. A greaseless cold cream is now much in demand, and a proper formula for the same would also be in order.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Committee on U. S. P. Philadelphia Coll. Pharm.: The expressed oil of apricot kernels should be recognized by the U. S. P. and used in ointment of rose water. This expressed oil is an American product, seems to be as satisfactory as expressed oil of almond, and is much less costly. As a matter of fact, it is probably used in the preparation of this ointment in most instances at the present time, and its use should be acknowledged.—Am. J. Pharm., 1920, v. 92, p. 562.

Hilton, S. L.: It is suggested that liquid petrolatum be used instead of oil of sweet almond in the preparation of ointment of rose water. Liquid petrolatum makes a far superior product, does not become rancid on standing, is more acceptable generally, and as usually employed seems to be a better product as it is not as readily absorbed.—J. Am. Pharm. Assoc., 1920, v. 9, p. 417.

Lewyn, I.: The substitution of peanut oil for almond oil in ointment of rose water is recommended. Almond oil is getting higher priced all the time and is not always pure. Peanut oil is obtainable at a lower price and is always pure.—J. Am. Pharm. Assoc., 1920, v. 9, p. 417.

UNGUENTUM BELLADONNÆ.

Committee on U. S. P. Philadelphia Coll. Pharm.: The addition of 5 per cent of yellow wax to ointment of rose water, replacing an equivalent amount of benzoinated lard, greatly improves the product, which is usually too soft.—Am. J. Pharm., 1920, v. 92, p. 562.

Lewyn, I.: It is recommended that in the preparation of ointment of belladonna, peanut oil in lard form be substituted for the benzoinated lard. A more stable product is insured, and the price is lower.—J. Am. Pharm. Assoc., 1920, v. 9, p. 417.

UNGUENTUM CAMPHORÆ, N. F.

Lascoff, J. L.: Simple ointment should displace the wax and lard in the present formula for camphor ointment.—J. Am. Pharm. Assoc., 1920, v. 9, p. 598.

UNGUENTUM CHRYSAROBINI.

Committee on U. S. P. Philadelphia Coll. Pharm.: It is suggested that the directions to strain the ointment of chrysarobin be omitted, as it seems to be unnecessary and an undesirable manipulation.—Am. J. Pharm., 1920, v. 92, p. 562.

Lewyn, I.: The use of peanut oil in lard form is recommended as a substitute for benzoinated lard in ointment of chrysarobin.—J. Am. Pharm. Assoc., 1920, v. 9, p. 417.

UNGUENTUM DIACHYLON.

Committee on U. S. P. Philadelphia Coll. Pharm.: It ought not to be necessary to strain the lead plaster and petrolatum in diachylon ointment.—Am. J. Pharm., 1920, v. 92, p. 562.

Lascoff, J. L.: The addition of water, after the plaster and petrolatum are melted, will render the finished ointment much softer and smoother than if the present N. F. directions are followed.—Drug. Circ., 1920, v. 64, p. 170.

UNGUENTUM GALLÆ.

Lewyn, I.: In the preparation of ointment of nutgall the substitution of the following in the place of benzoinated lard is recommended: 200 grams of white wax and 800 grams of peanut oil in lard form.—J. Am. Pharm. Assoc., 1920, v. 9, p. 417.

UNGUENTUM HYDRARGYRI.

Fontes, G.: Lard with 5 per cent of cholesterin and as much water as will mix therewith is recommended as a suitable base for the rapid preparation of a concentrated ointment of mercury. One hundred grams of this base will carry 3,000 grams of mercury.—J. pharm. et chim. 1920, v. 21, p. 192–195.

Narbona, Luis: Two formulas for the preparation of mercurial ointment are presented. In one, the extinction of the mercury is effected by means of turpentine and ether, in the other, honey and turpentine are used.—Répert. Pharm., 1920, v. 32, p. 85.

Dohme, A. R. L.: The limits of the amount of mercury present in the preparation of mercurial ointment should be more liberal. This recommendation is made in consideration of the difficulties which are experienced in making the ointment.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

Andrews, L. T.: The following recommendation is made for the assay of mercurial ointment: Add 20 cubic centimeters of nitric acid and 20 cubic centimeters of distilled water to 2 grams of the ointment, warm, stir occasionally and titrate with potassium sulphocyanate.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

UNGUENTUM HYDRARGYRI DILUTUM.

Committee on U. S. P. Philadelphia Coll. Pharm.: Diluted mercurial ointment has been found to be too soft in consistence for normal conditions. By replacing 40 gms. of the petrolatum with yellow wax, a more satisfactory product is obtained.—Am. J. Pharm. 1920, v. 92, p. 562.

Mayer, Joseph L.: The official method for the assay of mercurial ointment is too inaccurate and time-consuming. A volumetric method, stated to be more suitable, is described.—J. Am. Pharm. Assoc. 1920, v. 9, p. 706.

UNGUENTUM HYDRARGYRI NITRATIS.

Hommell, P. E.: Ointment of mercuric nitrate is being prescribed less and less each year in chronic diseases of the skin, because other mercurial applications give better results. Should it not, therefore, pass from the U. S. P. into the N. F.?—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

Committee on U. S. P. Philadelphia Coll. Pharm.: The formula given in the U. S. P. for ointment of mercuric nitrate is satisfactory for small lots of ointment. In the directions it should be made more clear that after the nitric acid is added to the melted lard, the heat should be very gradually increased until the characteristic reaction is complete. It is important also to state that the solution of mercuric nitrate should be incorporated with the nitric acid-treated lard before it has become cold.—Am. J. Pharm. 1920, v. 92, p. 562.

UNGUENTUM HYDRARGYRI OXIDI FLAVI.

Committee on U. S. P. Philadelphia Coll. Pharm.: Ointment of yellow mercuric oxide is chiefly used for ophthalmic purposes and the strength is then about 1 per cent. An ointment of this strength should replace the official ointment or be introduced as a "diluted ointment of yellow mercuric oxide." This should be made with a petrolatum base.—Am. J. Pharm. 1920, v. 92, p. 562.

Lascoff, J. L.: The ointment of yellow oxide of mercury should be reduced in strength so that it will contain 1 per cent of oxide. The latter is the strength of the ointment ordinarily prescribed by physicians.—Drug. Circ. 1920, v. 64, p. 170.

Hilton, S. L.: Ointment of yellow mercuric oxide of 1 per cent strength is generally used. This ointment is used mostly by oculists and they only use it as 1 per cent ointment. Why is it necessary to have an ointment of 10 per cent strength?—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

UNGUENTUM IODI.

Egan, Thomas A.: A revised formula for iodine ointment is proposed for the new edition of the U. S. P.—Pract. Druggist, 1920, v. 34, p. 477.

Éwe, George E.: Notes on the employment of different bases in the preparation of iodine ointment. Analytical data are given showing the loss of iodine in each case.—J. Am. Pharm. Assoc. 1920, v. 9, p. 49–51.

UNGUENTUM IODOFORMUM.

Hommell, P. E.: It is suggested that ointment of iodoform should be deleted from the U. S. P. Iodol, which is without odor, and less liable to cause poisoning, should replace it.—Proc. New Jersey Pharm. Assoc. 1920, p. 41.

UNGUENTUM PHENOLIS.

Egan, Thomas A.: A revised formula for phenol ointment contains 2 grams of phenol crystals to 100 grams of ointment. The phenol is incorporated with the ointment by dissolving it in 2 cubic centimeters of ether.—Bull. Pharm. 1920, v. 34, p. 477.

Hill, J. R.: Phenol ointment should be kept protected from extreme cold in order to prevent crystallization. If crystallization has taken place, the material should be remixed.—Pharm. J. 1920, v. 104, p. 9–10.

UNGUENTUM PICIS LIQUIDÆ.

Mueller, Bertha: It is recommended that the technic for making tar ointment be modified as follows: Melt the wax, add the lard, and when the whole is melted, pour it into a mortar and let it cool to a semisolid consistency, then gradually and with constant stirring add the tar. The U. S. P. directions do not yield a satisfactory product, owing to the fact that too much heat is directed to be used.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

UNGUENTUM SULPHURIS.

Lascoff, J. L.: The substitution of petrolatum for lard in the preparation of sulphur ointment is recommended.—Drug. Circ. 1920, v. 64, p. 170.

Beard, J. G.: In the preparation of sulphur ointment, it is recommended that the benzoinated lard be melted and added to the sulphur, first in such a quantity as will make a thick paste and this thoroughly triturated, and then the remainder of the lard with constant stirring until cold. The tendency with the present process is for the sulphur ointment to be granular unless the benzoinated lard is perfectly free from granulation. If the lard be melted and the whole mixture stirred while cooling, the resulting product will be perfectly smooth.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

UNGUENTUM ZINCI OXIDI.

Sollmann, Torald: A majority of the replies received to a questionnaire sent to the members of the American Dermatological Association were distinctly in favor of petrolatum as the base for zinc oxide ointment. Petrolatum was considered as being equal to lard therapeutically, and superior in consistency, keeping quality, and absence of irritating substance.—J. Am. M. Assoc. 1920, v. 75, p. 1420–1422.

Committee on U. S. P. Philadelphia Coll. Pharm.: The present ointment of zinc oxide should be made from a benzoinated lard of high quality, practically anhydrous, and if so prepared, and especially if preserved in tubes, it will keep for a long time without becoming granular.—Am. J. Pharm. 1920, v. 92, p. 562–563.

Clark, A. H.: As a result of an investigation of various formulae for the preparation of zinc oxide ointment, it is concluded that an ointment prepared with a base consisting of 65 parts of white petrolatum and 15 parts of paraffin is the most satisfactory.—J. Am. Pharm. Assoc. 1920, v. 9, p. 1171–1174.

Francis: It is recommended that the present U. S. P. formula for the preparation of zinc oxide ointment be discontinued and that it be replaced by a formula in which a petrolatum base is used.—Proc. Am. Drug Mfg. Assoc. 1920, p. 262.

Gray, William: It is recommended that zinc oxide ointment be made with petrolatum as the present ointment is prone to become rancid.—J. Am. Pharm. Assoc., 1920, v. 9, p. 1086.

Hilton, S. L.: A more satisfactory formula for ointment of zinc oxide should be devised. The present formula is far from satisfactory. The present preparation on standing becomes granular and in hot weather is entirely too soft.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417.

Lampa, Robert R.: The use of mutton tallow in the place of lard in the preparation of zinc ointment is recommended.—Am. Druggist, 1920, v. 68, No. 5, p. 26; J. Am. Pharm. Assoc. 1920, v. 9, p. 494–495.

Lascoff, J. L.: It is recommended that petrolatum be substituted for lard in the preparation of zinc oxide ointment as a more stable preparation results. The ointment, when prepared with a lard base, becomes rancid in a short time.—Drug. Circ. 1920, v. 64, p. 170.

Woods, Chas. D.: The zinc oxide content of 8 samples of zinc oxide ointment examined ranged from 18.2 per cent to 23.63 per cent.

The U. S. P. standard is 20 per cent.—Off. Insp. Maine Agric. Exper. Sta. 1920, No. 95, p. 10.

UNGUENTUM ZINCI STEARATIS, N. F.

Lascoff, J. L.: It is recommended that ointment of zinc stearate be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

UVA URSI.

Ewe, George E.: Two lots of uva ursi contained 6.2 and 10.2 per cent. respectively, of stems, which is in excess of the U. S. P. limit of 5 per cent.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 119.

VALERIANA.

Lampa, Robert R.: The average ash content of valerian root found on the market is 25 per cent. The U. S. P. allows not over 20 per cent.—Am. Druggist. 1920, v. 68, No. 5, p. 27; J. Am. Pharm. Assoc. 1920, v. 9, p. 495.

VANILLA, N. F.

Anon.: The production of vanilla beans in Madagascar and dependencies for the season 1919 to 1920 is estimated at 936,937 pounds.—Perf. & Ess. Oil Rec. 1920, v. 11, p. 240.

Cunningham, Chas. H.: Notes on the production of vanilla in Mexico. In 1919, 197,403 kilos were exported.—Com. Rep. 1920, No. 274, p. 826–827.

VANILLINUM.

Editorial: It is reported that the Jamaica Government proposes to manufacture vanillin from the oil distilled from pimento leaves.—Chem. & Drug. 1920, v. 93, p. 1253.

Büchl, A.: The occurrence of vanillin in the blossoms of scorzonera is reported.—Apoth-Ztg. 1920, v. 35, p. 237.

Maihle, A.: A general discussion of the constitution and methods of preparing vanillin.—J. usines à gaz. 1920, v. 44, p. 97–100, through Chem. Abstr. 1920, v. 14, p. 3226.

DeGroot, M.: A method for the determination of the solubility of vanillin and coumarin in glycerin solutions is described. Data are given showing the solubilities of these substances over a range of 0.2 to 60° C. for solutions containing up to 50 per cent of glycerin.—Am. Perf. 1920, v. 15, p. 372–374.

Daussler, E. P.: An investigation of the reactions of vanillin. It is concluded that certain classes of organic compounds give typical color reactions in the presence of hydrochloric or sulphuric acids.—

Ztschr. anal. Chem. 1914, v. 53, p. 363; 1915, v. 54, p. 104, through Pharm. Zentralh. 1920, v. 61, p. 329.

Geret, L.: A test for the detection of coumarin in vanillin is based on the fact that a saturated aqueous solution of coumarin gives a yellow turbidity with compound solution of iodide and subsequently yields blue-black crystals having a metallic luster.—Mitt. Lebensm. Hyg. 1920, v. 11, p. 69–71.

VERATRINA.

Hommell, P. E.: Veratrine should be deleted from the U. S. P. It is a powerful irritant and sedative which is now but little used.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Rossi, A.: A study of the action of veratrine on the isolated ureter.—Arch. fisiol. 1919, v. 17, p. 137–146, through Physiol. Abstr. 1920, v. 5, p. 430.

VERATRUM VIRIDE.

Gane, E. H.: It is suggested that veratrum viride be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Veratrum viride should not be deleted from the U. S. P., as its sedative action can always be depended upon.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Woodward, Chas.: Notes on the therapeutic value and uses of veratrum viride.—Nat. Eclect. M. Assoc. Quart. 1920, v. 11, p. 302–303; see also W. E. Daniels, p. 307–308.

VERBENA.

Kanda, M.: A report of field and laboratory studies of the various varieties of verbena, including observations on the embryonic development.—Bot. Gaz. 1920, v. 69, p. 54–71.

VIBURNUM OPULUS, N. F.

Éwe, George E.: Five lots of cramp bark examined were rejected, as they proved to be false cramp bark.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 111.

VIBURNUM PRUNIFOLIUM.

Francis, J. M.: It is suggested that a most careful reconsideration by the revisers of the U. S. P., X, be given viburnum prunifolium, and if this drug is to be retained in the Pharmacopœia or in the National Formulary, the presence of bark collected from either the trunk or stems of the tree in a quantity amounting to more than 25 per cent should not be allowed.—J. Am. Pharm. Assoc. 1920, v. 9, p. 417–418.

Heyl, Frederick W., and Barkenbus, Charles: Analytical data obtained in the chemical examination of viburnum prunifolium are presented. In addition to resin and tannin, the bark was found to contain traces of an alkaloid.—J. Am. Chem. Soc. 1920, v. 42, p. 1744–1755.

Éwe, George E.: One lot of black haw examined consisted of whole roots, whereas only the bark is desired.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 110.

VINA.

Fresenius, W., and Grünhut, L.: A report of investigations on the chemical analysis of wine, including the following determinations: Specific gravity, alcohol content, extract content, ash, alkalinity of the ash and the phosphate residue, free acids, etc.—Ztschr. anal. Chem. 1920, v. 59, p. 49–79, 209–234.

Casale, L.: A report of the investigation of electro-chemical methods for determining the addition of sulphuric acid to wine.—Le Stazioni sperimentali agrarie italiane, 1919, v. 52, part 10–12, through Intern. Rev. Sc. & Pract. of Agric. 1920, v. 11, p. 662–663.

Tretzel, Friedrich: A table is given showing the results obtained in the determination of free acids, volatile acids, nonvolatile acids, and lactic acid in several samples of wine.—Ztschr. Unters. Nahr.—u. Genussm. 1920, v. 40, p. 70–71.

Garino-Canina, D. E.: A study of the relationship of the chief acids in wine based on experimental data.—Le Stazioni sperimentali agrarie italiane, 1919, v. 52, parts 10–12, p. 536–541, through Intern. Rev. Sc. & Pract. of Agric. 1920, v. 1, p. 660–662.

VINUM CARNIS ET FERRI, N. F.

Mathieu, L.: A description of a colorimetric procedure for the quantitative determination of small quantities of iron in nutritive liquids, especially in wine. The test depends on the color which develops when sulphocyanate is allowed to act on ferric chloride.—Bull. Assoc. chim. de sucrerie, 1919, Dec. through Ann. chim. anal. chim. appl. 1920, v. 2, p. 337.

Bollinger, C. H., and Terry, R. W.: Attention is directed to the fact that the ammonia resulting from the iron and ammonium citrate must be deducted from the total ammonia obtained in the determination of protein in wine of beef and iron by the Kjeldahl method.—Midl. Druggist, 1920, v. 54, p. 378.

VINUM PEPSINI, N. F.

Gross, O.: Data showing the value of commercial pepsin wines are reported. Of 13 samples examined all were almost or entirely devoid of peptic activity.—Deutsch. Med. Wchnschr. 1920, v. 45. p. 283.

VINUM PRUNI VIRGINIANÆ, N. F.

Lascoff, J. L.: It is recommended that wine of wild cherry be deleted from the N. F.—J. Am. Pharm. Assoc. 1920, v. 9, p. 597–598.

VIRUS VACCINICUM.

Anon.: A note calls attention to the necessity of low temperatures for the preservation of vaccin virus. The U. S. P. IX specifies temperatures between 4.5° and 15° C. The latter figure is stated to be higher in all probability than is desirable.—Public Health Rep. 1920, v. 35, p. 1762.

XANTHOXYLUM.

Gane, E. H.: It is suggested that xanthoxylum be deleted from the U. S. P.—Am. Druggist, 1920, v. 68, No. 5, p. 25; J. Am. Pharm. Assoc. 1920, v. 9, p. 366–370.

Hommell, P. E.: Xanthoxylum should be retained in the U. S. P. because its action is similar to stillingia, a dependable alterative which increases secretion from the stomach, intestines, liver, and pancreas.—Proc. New Jersey Pharm. Assoc. 1920, p. 40.

Youngken, Heber W.: It is recommended that the word "transverse" before "sections" under the description of the histology of both Northern and Southern Prickly Ash barks be deleted and the descriptive text be accordingly revised. Medullary rays in Northern Prickly Ash, while mostly 1 cell in width, are occasionally 1 to 2 cells wide. Medullary rays in Southern Prickly Ash are mostly from 1 to 2 or 1 to 3 cells wide, occasionally 1 to 4 cells wide.—J. Am. Pharm. Assoc. 1920, v. 9, p. 418.

Editorial: A note on the use of xanthoxylum, or prickly ash, as a gastric stimulant.—Eclectic M. J. 1920, v. 80, p. 48.

ZINCI OXIDUM.

Scott, James: A very brief review of the history, manufacture, and properties of zinc oxide.—Chem. Trade J. 1920, v. 66, p. 3–4.

Applebaum, A. I.: A method for the determination of lead in commercial zinc oxide consists in precipitating the lead with potassium dichromate and weighing as chromate.—Chem.-Analyst, 1920, No. 31, p. 15.

Durand, Gaston, and Dejust, H.: A note on the use of zinc oxide in the treatment of diarrhœas and colitis.—Bull. gén. Therap. 1920, v. 171, p. 149–152.

Kitchin, G. S.: Attention is directed to the incompatibility of salicylic acid with zinc oxide in aqueous mixtures.—Pharm. J. 1920, v. 104, p. 301.

ZINCI PHENOLSULPHONAS.

Desvergnes, Louis: A description of a rapid method for the analysis of phenolsulphonic acids.—Ann. chim. anal. chim. appl. 1920, v. 2, p. 211–214.

ZINCUM.

Mayrhofer, Adolf: Microchemical methods for the testing of the official zinc salts are described.—Ztschr. allgem. österr. Apoth.-Ver. 1920, v. 58, p. 103–104.

Olivier, E.: A description of a colorimetric method for the analysis of commercial zinc.—Bull. soc. chim. de Belgique, 1920, v. 29, p. 142–163, through Bull. soc. chim. France, 1920, v. 27, p. 852.

Bingham, Kathleen E.: From experiments, it is concluded that zinc exists in three allotropic forms. The properties of these forms have been studied.—J. Inst. Metals, 1920, through Chem. Abstr. 1920, v. 14, p. 3341.

ZINGIBER.

Anon.: An editorial calls attention to the discovery of wild ginger plants in Colombia and points out that the latter may be a possible new source of ginger.—Chem. & Drug. 1920, v. 92, No. 6, p. 81–82.

Ewe, George E.: Eight samples of Jamaica ginger examined were above the U. S. P. standard of 2 per cent non-volatile ether extract. One sample of African ginger examined yielded more than 6 per cent oleoresin.—Proc. Pennsylvania Pharm. Assoc. 1920, p. 121.

Doi, R.: Zingerone, the constituent of ginger responsible for the odor, caused motor paralysis when infused into the blood of the frog, but no toxic effects were observed when it was administered by mouth. An abstract.—J. Am. M. Assoc. 1920, v. 75, p. 1031.

HYGENIC LABORATORY BULLETINS OF THE PUBLIC HEALTH SERVICE.

The Hygienic Laboratory was established in New York, at the Marine Hospital on Staten Island, August, 1887. It was transferred to Washington, with quarters in the Butler Building, June 11, 1891, and a new laboratory building, located in Washington, was authorized by act of Congress March 3, 1901.

Of the bulletins published by the laboratory since its establishment, copies of the following are available for distribution and may be obtained without cost by applying to the Surgeon General, United States Public Health Service, Washington, D. C.

No. 2.—Formalin disinfection of baggage without apparatus. By M. J. Rosenau.

No. 43.—The standardization of tetanus antitoxin (an American unit established under authority of the act of July 1, 1902). By M. J. Rosenau and John F. Anderson.

No. 51.—Chemical tests for blood. By Joseph H. Kastle.

No. 52.—Report No. 3 on the origin and prevalence of typhoid fever in the District of Columbia (1908). By M. J. Rosenau, Leslie L. Lumsden, and Joseph H. Kastle.

No. 55.—Quantitative pharmacological studies: adrenalin and adrenalin-like bodies. By W. H. Schultz.

No. 59.—The oxidases and other oxygen catalysts concerned in biological oxidations. By Joseph H. Kastle.

No. 65.—Facts and problems of rabies. By A. M. Stimson.

No. 73.—The effect of a number of derivatives of choline and analogous compounds on the blood pressure. By Reid Hunt and R. de M. Taveau.

No. 78.—Report No. 4 on the origin and prevalence of typhoid fever in the District of Columbia (1909). By L. L. Lumsden and John F. Anderson. (Including articles contributed by Thomas B. McClintic and Wade H. Frost.)

No. 81.—Tissue proliferation in plasma medium. By John Sundwall.

No. 89.—Sewage pollution of interstate and international waters with special reference to the spread of typhoid fever. VI. The Missouri River from Sioux City to its mouth. By Allan J. McLaughlin.

No. 94.—I. Collected studies on the insect transmission of *Trypanosoma evansi*. By M. Bruin Mitzmain. II. Summary of experiments in the transmission of anthrax by biting flies. By M. Bruin Mitzmain.

No. 95.—Laboratory studies on tetanus. By Edward Francis.

No. 96.—1. Report of investigation of coastal waters in the vicinity of Gulfport and Biloxi, Miss., with special reference to the pollution of shellfish. By R. H. Creel. 2. A comparison of methods for the determination of oxygen in waters in presence of nitrite. By Elias Elvove. 3. Some new compounds of the choline type. III. Including preparation of monoacetate of *α*, *β* dioxy-*β*-

methyl butane. By G. A. Menge. 4. The detection of white phosphorus in matches. By Earle B. Phelps. 5. The chemical composition of rubber in nursing nipples and in some rubber toys. By Earle B. Phelps and Albert F. Stevenson. 6. The analysis of thymol capsules. By Atherton Seidell. 7. Seasonal variation in the composition of the thyroid gland. By Atherton Seidell and Frederic Fenger. 8. Note on a new apparatus for use with the Winkler method for dissolved oxygen in water. By Hyman L. Shoub. 9. The pharmacological action of some serum preservatives. By Carl Voegtlin.

No. 97.—1. Some further siphonaptera. 2. A further report on the identification of some siphonaptera from the Philippine Islands. 3. The taxonomic value of the copulatory organs of the females in the order of siphonaptera. By Carroll Fox.

No. 99.—The Friedmann treatment for tuberculosis. A report of the board appointed for its investigation. By John F. Anderson and Arthur M. Stimson.

No. 100.—1. Pituitary standardization; a comparison of the physiological activity of some commercial pituitary preparations. By George B. Roth. 2. Examination of drinking water on railroad trains. By Richard H. Creel. 3. Variation in the epinephrine content of suprarenal glands. By Atherton Seidell and Frederic Fenger.

No. 101 (Reprint a).—IV. The sterilization of dental instruments. By H. E. Hasseltine.

No. 102.—I. Digitalis standardization. The physiological valuation of fat-free digitalis and commercial digitalin. By George B. Roth. II. Preliminary observations on metabolism in pellagra. By Andrew Hunter, Maurice H. Givens, and Robert C. Lewis.

No. 103.—I. Chemical changes in the central nervous system as a result of restricted vegetable diet. By Mathilde L. Koch and Carl Voegtlin. II. Chemical changes in the central nervous system in pellagra. By Mathilde L. Koch and Carl Voegtlin.

No. 104.—Investigation of the pollution and sanitary conditions of the Potomac watershed; with special reference to self-purification and sanitary condition of shellfish in the lower Potomac River. By Hugh S. Cumming. With plankton studies by W. C. Purdy and hydrographic studies by Homer P. Ritter.

No. 105.—Digest of comments on the Pharmacopœia of the United States of America and on the National Formulary for the calendar year ending December 31, 1914. By Martin L. Wilbert.

No. 106.—Studies in pellagra. I. Tissue alteration in malnutrition and pellagra. By John Sundwall. II. Cultivation experiments with the blood and spinal fluid of pellagrins. By Edward Francis. III. Further attempts to transmit pellagra to monkeys. By Edward Francis.

No. 107.—Changes in the Pharmacopœia and the National Formulary; a digest of the changes and requirements included in the Pharmacopœia of the United States (ninth decennial revision) and the National Formulary (fourth issue), with reference to the titles not continued from preceding editions. By Martin L. Wilbert.

No. 108.—Experimental studies with muscicides and other fly-destroying agencies. By Earle B. Phelps and A. F. Stevenson.

No. 109.—I. Pituitary standardization, 2: The relative value of infundibular extracts made from different species of mammals and a comparison of their physiological activity with that of certain commercial preparations. By George B. Roth. II. Pharmacological studies with cocaine and novocaine; a comparative investigation of these substances in intact animals and on isolated organs. By George B. Roth.

No. 110.—I. The standardization of antityphoid vaccine. By George W. McCoy. II. A colorimetric method for the estimation of the cresol or phenol preservative in serums. By Elias Elvove. III. Toxicity of certain preservatives used in serums, viruses, and vaccines. By James P. Leake and Hugh B. Corbitt. IV. Observations on the significance of antisheep amboceptor in human serum, with reference to complement fixation test for syphilis. By Mather H. Neill.

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No. 113.—I. An experimental investigation of the toxicity of certain organic arsenic compounds. By George B. Roth. II. On the toxicity of emetine hydrochloride, with special reference to the comparative toxicity of various market preparations. By Gleason C. Lake.

No. 114.—Index catalogue of medical and veterinary zoology. Subject: Roundworms. By Ch. Wardell Stiles and Albert Hassall.

No. 115.—I. Notes on the detection of B. tetani. By G. W. McCoy and Ida A. Bengtson. II. The standardization of pituitary extracts. By Reynold A. Spaeth.

No. 116.—I. The influence of vitamines on the course of pellagra. By Carl Voegtlin, M. H. Neill and Andrew Hunter. II. The chemical composition of the blood of pellagrins. By Robert C. Lewis. III. The amino acid fractions and hippuric acid in the urine of pellagrins. By John R. Murlin. IV. The occurrence of pellagra in nursing infants, with observations on the chemical composition of the human milk from pellagrous mothers. By Carl Voegtlin and R. H. Harries.

No 117.—Filariasis in southern United States. By Edward Francis.

No. 119. Digest of comments on the Pharmacopoeia of the United States of America and on the National Formulary for the calendar year ending December 31, 1916. By A. G. Du Mez.

No 120.—I. The experimental production of pellagra in human subjects by means of diet. By Joseph Goldberger and G. A. Wheeler. 2. The pellagra-producing diet. By M. X. Sullivan and K. K. Jones. 3. Biological study of a diet resembling the Rankin Farm diet. By M. X. Sullivan. 4. Feeding experiments with the Rankin Farm pellagra producing diet By M. X. Sullivan.

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No. 123.—An account of some experiments upon volunteers to determine the cause and mode of spread of influenza (for November and December, 1918, and February and March, 1919, at San Francisco and Boston. Three papers.)

No 124.—I. Differentiations between various strains of meningococci by means of the agglutination and the absorption of the agglutinins test. By C. T. Butterfield and M. H. Neill. II. The tropin reactions of antimeningococcus serums. By Alice C. Evans. III. Effect of freezing and thawing upon the antibody content of antimeningococcus serum. By C. T. Butterfield. IV. The fermentation reactions and pigment production of certain meningococci. By Clara E. Taft. V. Studies on the lethal action of some meningococci on mice with special reference to the protective properties of antimeningococcus serum. By M. H. Neill and Clara E. Taft.

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